The Plough, the Loom, and the Anvil.

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THE WORKING OF *BRITISH* FREE TRADE.

From the first hour of the existence of this journal, it has been our rule to lay the arguments of our opponents, and in their own words, before its readers; and the reason for so doing has been, that we have wished to place them in a position to think and judge for themselves as to the advantages or disadvantages that have elsewhere resulted, and must here result, from carrying into effect the doctrine of Adam Smith, when he taught that, in the natural course of things, the artisan went to the place at which the food and the raw materials were produced, *there* combining them together so as to fit them for cheap transportation to distant markets, to the great advantage of the farmer and planter—of Jefferson, when he taught that the time had come when the manufacturer should take his place by the side of the agriculturist—of Madison, who taught that it was not only constitutional but expedient to protect the farmers and planters of the country in their efforts to draw around them those who would consume their food while driving the shuttle and striking the hammer—and of Jackson, when he taught that we had been "too long subject to British merchants"—that "it was time we should become more Americanized"—and that that object was to be accomplished by aid of "adequate and fair protection."

Unlike our opponents, we desire to conceal nothing. We make no appeals to the ignorance of our readers by presenting them with figures so arranged as to give to falsehood the appearance of truth, and grouped together in such masses as almost to defy examination, even by those most conversant with the real facts of the case. On the contrary, we republish the figures and the words of our opponents, letter for letter, inviting them to do the same by us, and pledging ourselves, in return therefor, to republish their arguments in disproof of ours; and this we do because we seek the truth alone, and hold ourselves ready at any moment to abandon the cause of protection to the American farmer and planter, laborer and mechanic, whenever it can be shown that that is not *the true, the short, the profitable, and the only road to perfect freedom of trade.*

In accordance with our rule, we now republish a portion, and will on a future occasion give the remainder, of a speech in Congress, recently delivered by Hon. Robert Rantoul, jun., member of the House of Representatives for Massachusetts, a gentleman who has but recently made his first appearance in the general council of the nation.

The question before the House at the time of the delivery of this speech was that of appropriating public lands in aid of a railroad to be constructed in Iowa, and the ground taken by the speaker was, that the great trade of

this country was in future to be between the Mississippi Valley and foreign nations, and *over* the less favored lands of the Atlantic States, and that the prosperity of the whole Union was to be promoted by the most rapid extension of the system of Western railroads, while the West itself was to be especially benefited by the vast addition that would be made to the value of its land by thus facilitating the exchange of the commodities its people had to sell for those that they required to buy:—

"What makes," said the Hon. member, "lands within five miles of a great city more valuable than those a hundred or five hundred miles distant? It is simply because the produce of that land has a market, and because the time and expense of getting to that market is comparatively small. Diminish the time and expense of reaching a market from a section of land in the State of Missouri, and you raise the price of that land instantly and largely the moment you do so. Now, sir, of all the inventions that science has struck out, a good railroad is the machine that shortens the time, and lessens the expense, and puts a market at your door most effectually and most surely. That, this bill proposes to do for the inhabitants of Missouri along the line of this road, and proposes to do it in a manner which will not draw from the national treasury one dollar, and which will not prevent from passing into the treasury one single dollar; for you will not in Missouri, you will not in any State where a railroad is needed—and, if it is not needed, it ought not to be constructed—I say, you will not fear, but may be certain that the demand for land, at double prices, will be much more rapid than at the ordinary prices elsewhere."

"Of all inventions, a good railroad most raises the value of land; for," said the Hon. gentleman, "it enables the farmer to go to market." Further consideration might, we think, have satisfied him that there was one still greater invention—the one described and recommended by ADAM SMITH—to wit, that which brings the market to the farmer's door, and thus destroys the need for transportation, even by a railroad.

What is it that makes land valuable? What has made it every where valuable? Proximity to market; bringing the consumer to the side of the producer. The land of Belgium is of the highest value of any in the world, because there the consumer and the producer are most completely in connection with each other. That of France has enormously increased in value as the consumer has more and more taken his place by the side of the producer. So has it been with that of Northern Germany, since the adoption of efficient protection has, to so vast an extent, enabled the makers of cloth and of iron to take their places by the side of the producer of corn and potatoes, and enabled the latter to enrich their land instead of exhausting it, as they before had done, and as we do now in almost every quarter of the Union.

What destroys the value of land? The separation of the consumer from the producer; for that is invariably followed by exhaustion of the land, and its abandonment. For the last two centuries, no effort has been spared to prevent them from coming together on the land of Ireland; but all efforts failed until, at the Union, provision was made for the abolition of all protection, the result of which is seen in the fact that a large portion of that country is now on sale for the mere amount of the moneys that, in better times, were lent to its owners on mortgage security; while famine and disease are gradually exterminating the population. In India, *British* free trade has annihilated the domestic manufacturer, and, with each step in the progress of the operation, land has lost its value; and it has so done, because, as in Ireland, the people have been more and more compelled to depend on the distant market. In Portugal, such, too, has been the case, *British* free trade having ruined the landholders and degraded the people, and rendered the nation so powerless as to be an object of pity every where. So, too, with Turkey. There *British* free trade

prevails to a degree elsewhere unknown, and the result is seen in the annihilation of the value of both labor and land, and the utter prostration of the nation. Every where land acquires value, and its owner becomes enriched, as the consumer is more and more brought to take his place by the side of the producer; and every where it loses its value as the producer is more and more compelled to depend upon the distant market, because *the cost of transportation constitutes the first tax to be paid by both land and labor*, and because the cost of going to market must be paid by the man who has either labor or its products to sell, be the latter either cotton or cotton cloth.

The object of the tariff of 1842 was that of lessening the distance of the consumer from the producer. How far that object was accomplished, during the brief period of its existence, is seen in the fact that the production of coal grew from one million one hundred thousand to three millions of tons; that of iron from two hundred thousand to more than eight hundred thousand tons; that of cotton cloth from two hundred and sixty-seven thousand to half a million of bales; and that of woolen cloth from fifty to eighty million of pounds; while that of railroad iron, the manufacture of which in 1842 had no existence, had attained in 1847 an extent of one hundred thousand tons. To do all this work had required the opening of numerous mines, the building of numerous furnaces and mills, the opening of numerous roads, the creation and extension of numerous villages, and the erection of a vast quantity of spindles, looms, steam-engines, and other machinery; and the smallest estimate that can be made of the quantity of labor thus applied, *in the single year* 1846, to the production of these various species of machinery for the production of coal, iron, cloth, and the numerous other articles the manufacture of which grew up in the period from 1842 to 1847, would be thirty millions of dollars; while the additional value given by labor to the coal, the ore, the cotton, the wool, the hemp, and the numerous other products of the earth, exceeded that of 1842 by at least a hundred millions of dollars—making a total *increase* in the domestic market thus created for the fruits of the earth, in 1846 as compared with 1842, to the extent of at least *a hundred and thirty millions of dollars*. This was assuredly carrying out the views of the Hon. member for Massachusetts. Land, according to him, acquires value as you "diminish the time and expense of reaching a market." The tariff of 1842 caused the opening of mines and the building of mills in Massachusetts and in Alabama, in Connecticut and Ohio, in Pennsylvania and Tennessee, in Rhode Island and in Georgia; and every mill and every furnace that was built made a market for food and cotton, to be consumed by the men who built it, and a further market for both for the supply of the people who worked in those mills, furnaces, and mines. Further, each mine, each mill, and each furnace, diminished the *necessity* for applying labor to agriculture; and thus, while they *increased the demand* for the products of the earth, they *diminished the competition for the sale of them*, to the double advantage of the farmer and the planter.

The object of the tariff of 1846 is directly the reverse. Under it, we build no mills or furnaces, and we close old mills, and furnaces, and mines. Under it, we are gradually closing even the old market for labor, and are driving not only the whole increase of population, but much of that which previously existed, into agriculture, thus increasing the number of producers while diminishing the number of consumers. From day to day, as the old mills and furnaces are being closed, there is arising an increased necessity for looking to the distant market, precisely as, under the influence of *British* free trade, has been the case with Ireland and India, Portugal and Turkey; and yet, singu-

larly enough, if we are to believe the statements of the Hon. member, the policy which has ruined those states is now enriching us; while that which is enriching and strengthening Belgium, Germany, and Russia, produced no effect but that of impoverishing and weakening us.

We now invite our readers to the perusal of the statement of *facts* furnished by the Hon. gentleman, and of his views respecting the working of the two systems of protection and *British* free trade, begging them, while reading it, to bear in mind—

First, That the position taken by him is, that proximity to market increases the value of the land and of its products.

Second, That, whatever else may have been the effect of the tariff of 1842, it had unquestionably the effect of creating a vast domestic market for the land and its products, and should, therefore, in strict accordance with the principles of the speaker, have had the effect of augmenting the value of both.

Third, That the avowed object of the tariff of 1846 was the substitution of the foreign and distant market for the domestic and near one, and that that object is being attained as the mills, furnaces, and mines of the Union are being closed; and that, in strict accordance with the doctrines of the Hon. member, its effect should be the diminution of the value of both land and its products.

Fourth, That, singularly enough, the effects of the two systems, according to the Hon. member, have been directly the reverse of all this; the value of cotton, of food, and of tobacco, having diminished as the market was more and more brought home to the producer, and increased as the market became more distant, and as the cost of transportation increased.

" There is another great interest—the manufacturing interest. Let me say a few words upon this subject, and I propose to say but a few. The great manufacturing interest thrives as its customers thrive, and it cannot thrive without them, nor without their prosperity. The manufacturing interest in New-England, New-York, and Pennsylvania, perishes if the West ceases to be a good purchaser. The danger to that interest is not from importations from abroad. The hopes of the manufacturing interest should not be in excluding importations from abroad. That interest in the North-east should cease to look with fear to the other side of the Atlantic; but it should begin to look with hope towards the West. That is the true doctrine for the people of any section of the country. May they learn it, and act upon it in season. Why, sir, the manufacturing interest has every thing to hope from the people of the West, who are its best customers. Look at the change that has taken place within a few years past. The President in his Message has told us that agricultural products have not risen in price, and experienced an increased demand, as was expected under the present tariff, as compared with the former. Sir, I do not know what gentlemen expected, but their expectations must have been extravagant indeed, if they have not been more than satisfied. If you take the agricultural products of this country, take the whole amount of articles exported from this country—and they are almost all agricultural—from the year 1842 to 1846, during the operation of the last tariff, and compare their export value, as stated by the shippers, with the value of the same quantities of the same articles at the prices which prevailed before 1842, and you will find the difference to be about $125,000,000. You will find that your exports of products of all sorts brought, under the tariff of 1842, about $125,000,000 less than the same articles would have amounted to if sold at the prices which prevailed for four years previous to 1842. There is a state of things which agricultural interests would not desire during those four years. How has it been since 1846? There has been a general rise of about the same amount; that is to say, about $30,000,000 a year. The articles exported since 1846 down to the present time, if they had been sold at the average prices that prevailed from 1842 to 1846, would have brought nearly $150,000,000 less than they have brought; a difference of $30,000,000 a year as before. Under the tariff of 1842, our exports sold for $30,000,000 a year less than the same quantities had sold for before; and under the tariff of 1846, and since that time, they have brought $30,000,000 a year more than the same quantities had brought before.

A.

Cotton Exported, with its Value, during three Periods—from 1839 *to* 1842 *inclusive, from* 1843 *to* 1846 *inclusive, and from* 1847 *to* 1851 *inclusive:—*

Four years ending with 1842.		Four years ending with 1846.	
Quantity, - -	2,272,486,390 lbs.	Quantity, - -	2,876,394,612 lbs.
Value, - -	$227,018,094	Value, - -	197,690,291
Price per lb., -	$9.99-100 cts.	Price per lb., -	6.873-1000 cts.

The quantity of cotton for the latter four years, at the price of the former four years, - - - - - - - - - -	9.99-100 cents.
Would have sold for - - - - - - - - - -	$287,351,822
Official return of its value, - - - - - - - -	197,690,291
Loss on cotton by fall of prices, - - - - -	$89,661,531

Five years ending with 1851.

Quantity, (pounds,) - - - - - - - - - -	3,930,715,351
Value, - - - - - - - - - - - - -	$366,111,042
Price, (per pound,) - - - - - - - - - -	9.314-1000 cts.
The quantity of cotton for the latter five years was valued at	$366,111,042
At the price of former four years, 6.873-1000 cents, it would have brought only - - - - - - - - - -	270,158,066
Gain on cotton by rise of prices, - - - - -	$95,952,976

B.

Loss on Fall of Prices under the Tariff of 1842, *and Gain by Rise of Prices under the Tariff of* 1846:—

Under tariff of 1842.

Loss on cotton, (as per table A,) - - - - - - -	$89,661,531
Loss on tobacco, - - - - - - - - - - - -	16,786,197
Loss on vegetable food, - - - - - - - - - -	8,519,803
Loss on provisions and animal products, - - - - - -	4,373,108
Loss on other exports, (estimated in part,) - - - - -	7,000,000
	$126,340,639

Under tariff of 1846.

Gain on cotton, (as per table A,) - - - - - - -	$95,952,976
Gain on tobacco, - - - - - - - - - - - -	7,482,289
Gain on vegetable food, - - - - - - - - - -	25,173,392
Gain on provisions and animal products, - - - - - -	8,662,264
Gain on fisheries, - - - - - - - - - - -	978,572
Gain on ashes, - - - - - - - - - - - -	1,136,781
Gain on other exports, (estimated in part,) - - - - -	9,000,000
	$148,486,274

Not only have the prices risen, but the quantities also have vastly increased. The enlargement of the aggregate of a single year's business to the extent of $200,000,000 in five years' time, is enough to satisfy reasonable expectations. Yet this amount is the subject of complaint in the Message.

	1846.	1851.
Imports, - - - - - - - -	$121,691,797	$215,725,995
Exports, - - - - - - -	113,488,516	217,517,130
Aggregate, - - - - -	$235,180,313	$433,243,125

The year 1846, which I have chosen for this comparison, is the year of the largest trade under the tariff of 1842, though it is not so large by several millions as the average of the ten years preceding that tariff.

But it is said the farmers have been disappointed. Let us see with what reason :—

C.

Showing the Exports of Vegetable Food and Animal Products, from 1843 *to* 1850 *inclusive.*

	Animal.	Vegetable.	Aggregate.
1843,	$3,963,694	$6,955,908	$10,919,602
1844,	6,149,379	11,239,437	17,388,816
1845,	6,206,394	9,810,508	16,016,902
1846,	7,833,864	19,329,585	27,163,449
	$24,153,331	$47,335,438	$71,488,669
1847,	$11,113,074	$57,070,356	$68,183,430
1848,	12,538,896	25,185,647	37,724,543
1849,	13,153,302	25,642,362	38,795,664
1850,	10,549,383	15,822,373	26,371,756
	$47,354,655	$123,720,738	$171,075,393

If the statements here made represent faithfully the operations of the past fifteen years, they settle the question of protection. If they are true, then, the more distant the market, the more prosperous must be the farmer; and the nearer the market, the lower must be the value of labor and land. Are they true? Are they so nearly true as to have warranted the Hon. gentleman in making them? In reply, we have to say that when, even in private life, a gentleman makes a statement, we are bound to suppose that he believes it to be "the truth, the whole truth, and nothing but the truth;" and to say that he did otherwise, would be to say that he was not entitled to be considered a man of honor, and this, whether the departure from truth charged upon him consisted in the suppression of important facts bearing upon the question, or the production of facts that had no existence. In this case we charge both, for facts of the highest importance are suppressed, and others are asserted that are not facts. Nevertheless, we desire explicitly to disclaim the idea of charging the Hon. member with any intentional failure in veracity, for we regard him only as one of those who have been misled by the fraudulent tables systematically put forth by such papers as the New-York *Journal of Commerce* and the Washington *Union*, and can scarcely doubt that when the mist shall have been cleared from before his eyes, it will be to him a source of much mortification to recollect that he had signalized his advent to the councils of the nation by endorsing so grievous a perversion of facts as that we have here copied.

We propose now to examine these statements, with a view to show—

First, That they are not in accordance with the real facts of the case; second, that facts of the highest importance to a correct understanding of those that are given have been throughout suppressed; and third, that those thus suppressed are patent to the world, and that it was a failure in the duty he owed to his constituents for the Hon. member to attempt to instruct his fellow-citizens in regard to a question admitted to be of such vital importance to their material and moral interests, and to the prosperity and power of the nation, without first making himself acquainted with them.

Before doing this, we desire to call the attention of our readers to the precise view of the case that the Hon. member desires to establish, and for that purpose, give them again an extract from Mr. Walker's Report, that has once before been laid before them :—

"Experience is against the protective policy. . . . From a long peace, Europe is

becoming so densely populated that her poorer and more uncertain climate affords a less adequate supply of food from year to year for her rapidly increasing population. Under a system of low duties, and a reciprocal interchange of commodities, it will be the interest not only of Great Britain, but also of most of the Continent of Europe, to take a large supply of food from us; but by arresting this exchange of their fabrics for our products, it becomes their interest, and in fact a necessity, to look for and encourage markets elsewhere; and also, by extraordinary means and high government bounties, to drive capital into agriculture there, to supply the wants of their people, unable to purchase our products, for which we demand specie in exchange. If we receive the fabrics of Europe in exchange for our products, it will be to their interest to encourage and enlarge that commerce; and *it must go on rapidly augmenting, until our country becomes the granary of Europe, and our export trade of food shall even exceed that of cotton,* great as that is destined to be under a system of low duties."

. . . . "*If England and America were united by absolute free trade, the reciprocal exchanges between them would soon far exceed the whole foreign commerce of both;* and with reciprocal free trade with all nations, our own country, with its preëminent advantages, *would measure its annual trade in imports and exports by thousands of millions of dollars.*"

England desires that there shall be in the world BUT ONE PURCHASER OF COTTON, that she may fix its price; and BUT ONE SELLER OF CLOTH, that she may also fix its price. The object of the tariff of 1842 was that of bringing about a competition in the *purchase* of cotton, and thus to raise its price, and a competition for the *sale* of cloth, and thus to diminish the cost to the consumer, and enable him to consume more; and such have been the results of protection in France, Belgium, Germany, and Russia, while the reverse has been the case in all the countries of the world in which, by means of the maintenance of free trade with England, the farmers have been obliged to content themselves with having but one purchaser of their products, and one seller to them of cloth and of iron. Nevertheless, the Hon. Secretary was anxious to adopt the system that had ruined Ireland and India, Turkey and Portugal. "Close," was his theory, "the domestic market, now so rapidly growing, and you will find a larger one abroad. Relinquish the absurd idea that two purchasers of cotton are better to you than one, or that you will have cloth and iron cheaper when there are two sellers than when there is only one. The more entirely you confine yourselves to agriculture, and the more complete the control of the spinners of Manchester over the prices of your products, the richer you will grow." His policy was adopted, and henceforth the exports were to increase in quantity, and their value was to increase, enabling us to buy more as we sold more; and the greater the *quantity* of commodities we sent abroad, the greater was to be the *quantity* of other commodities we were to receive in exchange. A perusal of the extract from the speech of the Hon. member above given, will show that its object is to prove that these magnificent expectations have been and are in a course of being realized, and that "not only have prices risen, but that quantities have vastly increased." If, now, it be shown that in every case within the range of his tables, increased price has been a consequence of diminished quantity sent to the markets of Europe, and that rise of price has invariably been a consequence of diminution in the quantity sent to them, it will be obvious to our readers that, in this well-combined collection of figures, there has been a suppression of facts for which its author will require to call to account those who have so egregiously imposed upon him. That such is the case, we propose now to satisfy them, commencing, as he has commenced, with

COTTON.

In the four years ending with 1842—the first period selected by the Honorable member—the cotton crops averaged one million seven hundred

thousand bales, and the export one million four hundred and fifty thousand; according nearly with the returns to the Treasury, which gave an annual average of nearly six hundred millions of pounds. In the earliest of those years, the export price was fourteen cents; but with the gradual increase in the quantity exported, consequent upon the closing of the domestic market as the strictly revenue tariff came into operation, the price fell, until, in 1841–2, it stood at *eight cents* here, while in England the average of the last year of this free trade period was little more than five pence per pound. Here, at least, we have a case in which increased quantity was *not* attended with increase of prices, although that increase of quantity was attended with the adoption of British free trade to an extent that has not since been tried, our duties having then been only twenty per cent.

In the four succeeding years, 1842–3 to 1845–6, the crops amounted to eight millions eight hundred thousand bales, giving an average of two millions two hundred thousand, or half a million more than in the previous period, from 1838 to 1842; and as our consumption was then only beginning to revive from the destructive effects of the revenue tariff, nearly the whole surplus was compelled to seek a market in England, that country upon which it is the object of the tariff of 1846 to make our farmers and planters so dependent, and with which we might, according to Mr. Walker, have so large a trade, provided only that we sent her all our cotton to be converted into cloth. How this operated in the period from 1842 to 1846, when we had large crops, shall now be shown.

The quantity of American cotton received in Great Britain in the four years from 1839 to 1842 was three millions nine hundred and sixty-eight thousand bales, giving an average of nine hundred and ninety-two thousand bales; and so feeble was the demand in that period of *British* free trade, that the average prices in the last year but little exceeded, as we have stated, five pence per pound. It was in this depressed state of the English cotton market that the tariff of 1842 came into operation.

In the four succeeding years, those of the tariff of 1842, the quantity received in the market of Great Britain was five millions and eighty thousand bales, giving an average of one million two hundred and seventy thousand bales, or *almost three hundred thousand more than the average of the free-trade period;* and the natural consequence of this was not only a fall of price, but a fall in the actual amount received for it; whereas, according to the doctrine of the Hon. member, prices should have increased.

Now, why was it that this increased quantity had to seek a market in England? Clearly because we had almost annihilated the domestic market. The domestic consumption had fallen in 1842 to two hundred and sixty-seven thousand eight hundred and fifty bales; and it required years to start again the then abandoned mills, and still more years to build new ones. By degrees the domestic demand was restored, and the consumption rose, in 1846–7, to nearly half a million, and thus largely diminished the quantity for which we needed to seek a market abroad. The average increase of growth was half a million, but the average increase of the quantity thrown on the market of England was under three hundred thousand, and to the deduction thus made was due the fact that the fall of prices was not far greater. To what was that deduction due? Was it not to the tariff of 1842, which encouraged the building of mills and furnaces, and under which our domestic production of cloth increased, *per head*, fifty per cent.; to the rapid growth of trade in the *Zollverein*, where the German farmer is *thoroughly protected* in his efforts to bring the hammer and the spindle to the side of his plough, and where, under that efficient protec-

tion, the consumption of cotton has grown in fifteen years *three hundred and fifty per cent.*, or from *forty millions* of pounds to *one hundred and forty millions;* and to the increased consumption of Russia and of Belgium, *the Paradise of protection?* Unquestionably it was. But for protection, here and elsewhere, the planter would have been ruined in the period from 1842 to 1846.

We would now beg our readers to remark the manner in which the statements of the Honorable member have been constructed for him, and then to judge for themselves what has been the object of this course of operation. In the first place, we are told that, under British free trade, increase of quantity has been attended with increase of price. Singularly enough, however, in treating of the first period, the Hon. member omits all reference to the fact that, precisely as we passed from protection towards free trade—from having two purchasers to having only one—the prices, notwithstanding the small supply, tended regularly downwards, *and had reached in* 1840–2 *a lower point than had ever before been known.* The tariff of 1842 found cotton at eight cents, and then large increase of quantity was attended with diminution of price, being precisely what might have been anticipated. To prove, however, the disadvantageous effects of that tariff, the Hon. member's tables suppress the fact that the crops of the previous years had been short, and then, deceived himself, he furnishes his readers with a calculation of the amount that would have been realized if the large crops of the years from 1842 to 1846 had sold at the prices that had been obtained for the short crops from 1839 to 1842, the amount being most accurately made out to have been the large sum of $89,661,531. We would beg to suggest to him to extend his calculation a little farther, and estimate how much greater would have been the loss had the tariff of 1842 not existed, and had the total increased product, amounting in the whole to no less than two millions of bales, been required to go to England. It is really time that gentlemen who undertake to teach the world on this most important question should begin to understand that they are bound to study facts for themselves, or to see that all are furnished to them; suppression of an important fact being quite as much falsehood as is the assertion of a fact that has no existence. We repeat our disclaimer of any intention to charge the Hon. member, or any other gentleman occupying a place in the great Assembly of the nation, with deliberately and wilfully stating what he knows not to be true; but when a person whom we have a right to suppose cognizant of the facts of the case, comes forward and furnishes us with a statement from which the great fact of the enormous size of the crops of 1842–6 *is carefully excluded*—and then assures us that the low prices of that period were a consequence of the existence of the tariff of 1842, under which the domestic market for both cotton and cotton cloth so largely increased, we cannot but say that we pity him for such a manifestation of absence of all the knowledge required for the position in which he has been placed by his constituents.

We come now to the Hon. gentleman's facts in relation to the cotton trade under the tariff of 1846, as compared with that of the tariff of 1842; and it becomes now necessary to state that the Treasury returns in relation to that trade, during the administration of Mr. Walker, are not entitled to even the shadow of consideration. In the first two Reports made by that gentleman to Congress, *while the tariff of* 1846 *was in preparation*, the exports are *cut down* in a manner the most extraordinary, while the export for the first year of his own tariff is, on the contrary, in a similar manner expanded, as will now be shown. The actual quantity exported in 1844–5 was two millions eighty-three thou-

sand seven hundred and fifty-six bales, giving a weight of about nine hundred millions of pounds; whereas the Report, being the first issued under Mr. Walker's direction, makes the quantity only seven hundred and fifty-seven millions. In the following year, the bales exported amounted to one million six hundred and sixty-six thousand, or about seven hundred and fifty millions of pounds; whereas the Treasury Report, Mr. Walker's second, makes it only five hundred and forty-seven millions, being but nineteen millions more than the return for the following year—*the first after the passage of Mr. Walker's tariff*—although the quantity known to have been exported in this latter year was only one million two hundred and forty-one thousand bales, or four hundred and twenty-five thousand less than the quantity known to have been exported in the previous one.

That our readers may understand this matter fully, we give the following table, in which are shown—first, the bales actually exported, and second, the *pounds* exported according to the Treasury tables, converted into bales of the average weight of four hundred pounds:—

	Bales Exported.	Treasury Returns.	Latter less than truth by	Latter more than truth by
1844, - - -	1,629,000	1,659,000	....	30,000
1845, - -	2,083,756	1,892,000	191,000	....
1846, - - -	1,666,792	1,368,890	298,000	....
1847, - -	1,241,222	1,318,040	....	77,000
1848, - - -	1,858,261	2,356,830	....	498,000
1849, - -	2,227,844	2,566,280	....	339,000

Under such circumstances, the Hon. gentleman must excuse us if we resort to other authority for a comparative view of the cotton trade of the four years that he has assigned to the tariff of 1842, and of those that have since elapsed.

All the cotton we raise that is not consumed among ourselves, or in the countries of Europe that afford to their farmers high protection, goes to England, and it was to promote an exchange of food and cotton for the manufactures of that country that the tariff of 1846 was passed. The trade with that country is thus the trade which *British* free-traders seek to extend, and there could exist little objection to our taking the business of that market alone; but we will first give the total exports to the world at large, as follows:—

1843,.....	2,010,137	1847,.....	1,241,222
1844,.....	1,629,490	1848,.....	1,858,261
1845,.....	2,083,756	1849,.....	2,227,844
1846,.....	1,666,792	1850,.....	1,590,155
		1851,.....	1,958,710
	7,390,175		8,876,192
Average, ...	1,847,544	Average, ...	1,775,238

We beg our readers now to turn to the Hon. gentleman's statement, that not only had the price increased, but that the quantity had also "vastly" increased, and then to judge of the reliance they may place on the assertions he has been misled to make.

In this latter period, the manufactures of Continental Europe have rapidly increased, *because of ample protection*, and have made a large market for both cotton and yarn, that has aided largely in maintaining prices; and yet, whenever the export to England of *a single year* has touched the point of *the*

average of the four years from 1842 to 1846, the result has been a fall of prices that is quite remarkable, as will now be shown.

The total quantity received in England in the four years from 1842 to 1846 was five millions and eighty thousand bales, giving an average for nearly the whole period of 1842, of one million two hundred and seventy thousand bales, which sold at four and three eighths to four and seven eighths pence per pound.

In 1847, the quantity was only eight hundred and seventy-four thousand bales, and the average for that and the following year was but one million one hundred and twenty-five thousand bales; yet in 1848, with a receipt of only one million three hundred and seventy-five thousand four hundred bales, the price fell to a lower point than that at which it had stood at any time during the existence of the tariff of 1842, the average having been only four pence farthing, notwithstanding the remarkably short crop of the previous year. Such having been the case, what reliance can be placed on the statement of a gentleman who couples increase of price with "vast" increase of quantity? In 1849, the quantity received was but one million four hundred and seventy-seven thousand seven hundred bales, and yet the price fell still lower, thus negativing the idea that increase of price and increase of quantity go together. In 1850, the quantity received was one million one hundred and eighty-four thousand bales, and with this *diminished* quantity the price rose. The last year, with a crop less than that of 1844–5, and little more than *the average* of those of the years from 1842 to 1846, exhibits a receipt in England of one million three hundred and ninety-five thousand seven hundred bales; and the consequence is seen in the fact that, while the average receipt of the *two past years* has been no greater than the average of *the whole of the years* of the tariff of 1842, the price has here fallen to little more than thirty dollars a bale, and for the simple reason that the domestic consumption has been so far reduced by the tariff of 1846 that we have been compelled to throw on the market of England three hundred thousand bales that should have been consumed at home. Far more than that quantity would have been so consumed had the tariff of 1842 been permitted to remain in force. To its repeal, and the consequent prostration of the domestic market and destruction of *competition* for the purchase of cotton, is due the fact that it has fallen from more than fifty to little more than thirty dollars a bale, at a cost to the planters of twenty dollars a bale, making a total loss on the present crop of between *fifty and sixty millions of dollars*, with prospect of still greater loss on the next.

The Hon. gentleman favored his hearers with a calculation of how much the large crops of 1842 to 1846 would have sold for, had they realized the high prices of the short crops of the previous four years, *suppressing*, however, the fact that the latter had been short, and then charged the difference to the tariff of 1842! We would beg him now to make a calculation how much cotton would have been consumed in this country had the tariff of 1842 remained in operation, and had the mines, and mills, and furnaces continued open, and had new ones continued to be built, and see if the domestic market would not, in the period that has elapsed since the passage of the act of 1846, have absorbed far more than a million of bales in excess of what has been the actual consumption, and then to calculate what would have been the effect of the withdrawal of that quantity from the European market, with a view to satisfy himself if the price thus far paid by the cotton planter for the tariff of 1846 has not exceeded *two hundred millions of dollars*. At the close of the last year, cotton had fallen, as the London *Economist* informs us, to a point as low as, with a single exception, it had reached in ten years; but, should we now be

favored with a series of large crops, as was the case from 1842 to 1846, what will be the price when, as a consequence of the daily diminution of our own consumption, the whole excess will require to be thrown on the market of England? It will be small comfort then to the planters, should our orator favor them with a calculation how rich they would be if, with a crop of three millions of bales, they could realize the prices of 1849–50, with a crop of two millions; and yet, should he do so, it would be scarcely more absurd than is the mass of figures he has presented us, with a view to show how large would have been the receipts of the planters if they could only, with crops averaging for a succession of years two millions two hundred thousand bales, have realized the high prices obtained in the previous years, when the average was but one million seven hundred thousand bales! Such a calculation as this should, we think, be regarded as qualifying its author to succeed to the post formerly occupied by Mr. Walker; for, absurd as were many of that gentleman's statements, we doubt if there is one of them more so than that to which we now refer, and we are quite certain that, in all his reports, there is not a single departure from that fairness which should characterize a gentleman that is more remarkable than is the total omission in this speech of all reference to the fact that the yield of cotton in 1842 to 1846 was greater by two millions of bales than that of the years from 1839 to 1842.

The object of the whole of this statement is that of showing that prices had risen, and that they had done so in the face of "a vast increase" in the quantity exported. In opposition to this, we have established—

First, That, instead of an increase in the quantity of cotton exported, there has been a decrease, although the tendency of the tariff of 1846 is that of driving all our people into agriculture.

Second, That increase of price has invariably been the accompaniment of diminution of supply.

Third, That, whenever the export of any one year has equaled the average export of the whole four years of the tariff of 1842, price has fallen, as it then fell.

Fourth, That the average export of the two past years has been ten per cent. less than that of the whole four years of the tariff of 1842, and yet that the price has fallen to the point it then reached.*

Fifth, That the reduction which has in every case followed even a slight increase of export, proves conclusively that the foreign market is incapable of extension, and that it is to the expansion of the domestic one alone that the planters can look for the maintenance of prices; and

Sixth, That a continuance of growth in that market, similar to that which took place from 1843 to 1847, would have absorbed so much of the cotton with which the market of England has since been deluged, as to have maintained the price at the highest point which it has attained at any period of short crops that we have seen in the past five years. If the Hon. member is of a contrary opinion, we beg him to examine the facts of the case, and to show us a single good reason for believing that increase in the quantity exported has ever been, or can ever be, accompanied by a rise of price; or for believing that the tariff of 1842, which caused the domestic absorption of so much of the large crops produced during the period of its existence, and which to that extent diminished the quantity pressing on the market of England, had

* "The value of cotton at the termination of the years 1849 and 1850 was respectively 30 to 40 and 50 to 80 per cent. higher than at present. Although it is now somewhat above the rates of July last, it is still moderate, having been lower but *once* [end of 1844] in ten years."—*Economist.*

any thing to do with the fall of prices that then took place; or, finally, for believing that the tariff of 1846, which destroys domestic consumption, and forces a larger mass of cotton on the limited market of England, has had any thing to do with the rise of prices. Such are the things he has undertaken to prove by aid of a vast quantity of well-arranged figures, a portion of which we have now analyzed; and having done so, we especially desire that he shall proceed to make his assertions good.

We beg now to call the attention of our readers to the following diagram, in which are accurately presented the opening and closing of the several periods embraced in the Honorable member's tables; to wit—

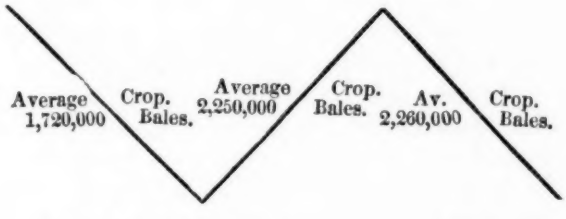
I. From 1838–9 to 1841–2, opening with protection, and ending with *British* free trade, in which the crops averaged 1,720,000 bales.

II. From 1841–2 to the date of the passage of the act of 1846.

III. From that date to the close of 1851.

1838-9—Protection.
Pop. 16 Millions.
Consumption, 276,000 bales.
DEMAND AND SUPPLY EQUAL.
Price, FOURTEEN CENTS.

Sept. 1846—High Protection
Pop. 21 Millions.
Consumption, 500,000 bales.
DEMAND OVERTAKES SUPPLY.
Price, TEN CENTS.



1841-2—British Free Trade.
Pop. 18 Millions.
Consumption, 267,000 bales.
SUPPLY EXCEEDING DEMAND.
Price, EIGHT CENTS.

1851-2—British Free Trade.
Pop. 25 Millions.
Consumption, 470,000 bales.
SUPPLY EXCEEDING DEMAND.
Price, SEVEN AND A HALF CENTS.

In the Manchester School of Political Economy, in which Mr. Walker is so distinguished a professor, it is taught that it is to the interest of the cotton planter that there should be

BUT ONE BUYER OF COTTON;

and in the world there would be now but one, were it not for protection.

It is there also taught that it is for the interest of the purchasers of clothing and of machinery that there should be

BUT ONE SELLER OF CLOTH AND OF IRON;

and in the world there would now be only one, were it not for protection.

Ireland, Portugal, India, Turkey, and Canada, are forced to submit to the *British* system of free trade, and the consequences are seen in the facts that they buy no cotton and consume but little cloth or iron. France, Belgium, Germany, and Russia *protect themselves against the system*, and the consequences are seen in the facts that they buy largely of cotton, and consume largely of cloth. The tariff of 1842 looked to placing ourselves side by side with the strong nations of the world—those who can and do protect themselves—and it was fast accomplishing its object. The tariff of 1846 looks to placing ourselves side by side with the weakest communities of the world—those which

cannot and do not protect themselves—and it is fast accomplishing its object, as effectually as was done by the revenue tariff of 1841–2.

Having thus disposed of the statements in relation to cotton, we now proceed to examine those in regard to TOBACCO, and doubt not to satisfy our readers that they are equally unworthy of consideration. Of the crops of 1839–42, there were exported five hundred and eighteen thousand hogsheads, giving an average of about one hundred and thirty thousand; whereas those of the four previous years had averaged only ninety-four thousand five hundred. The consequence of this excess of export was, not an increase, but a decrease of value; and, with the gradual accumulation of stock in the warehouses of England, the price fell gradually, until it reached, for the crop of 1841, sixty dollars. Commencing, in 1838, with *one hundred and twenty-four dollars* under protection, it reached *sixty dollars* under the British free-trade system in 1842. At the date of the passage of the act of 1842, *it had fallen still lower;* and now, in the three succeeding years—1843, 1844, and 1845—the yield was so great that the export reached the enormous amount of four hundred and sixty-two thousand, or an average of no less than a hundred and fifty-four thousand hogsheads; but the reader of the Honorable gentleman's speech will look to it in vain for any notice of this fact. As usual, it is *suppressed.* Instead thereof, they will find a most ingenious calculation as to how much those large crops would have yielded, had they been sold at the prices of the so much smaller crops of the previous years, the difference being charged to the account of the tariff of 1842! While thus ignoring the existence of the fact that small crops had given good prices, and had thus proved the advantage of diminishing our dependence on the English market, the Hon. gentleman assured his hearers that prices and quantities had largely increased under the tariff of 1846; and having favored them with a calculation how much the tariff of 1842 had depressed prices, causing a loss to the tobacco planters to the extent of $16,786,197, he next proceeds to show how the tariff of 1846 had raised prices, and gives the gain to the planter from its existence at $8,662,264. Now, mark how a plain tale shall put him down:—

The average export of 1844–5 and 6 amounted, as we have said, to the enormous quantity of 154,000 hogheads, the consequence of which was, that the average prices during that period fell to	$52 50
In 1847, it fell to 135,000 hogsheads, yet, notwithstanding this diminution, the price rose to an average of only	53 66
In 1848, it fell further to 130,000 hogsheads, and the price rose to	58 00
In 1849, it was only 101,000 hogsheads, and yet the price remained at only	58 00
This unceasing reduction continued through a period of three years, and was attended by a diminution of stocks abroad, the consequence of which was, that in 1850, with a *certainty* that the growing crop would be very short, the price rose to	68 60
And in 1851, with an export of 96,000 hogsheads, it again rose to	96 00

In 1852, at the moment at which we are writing, the price declines daily;

and it has already fallen, at the close of a period of five years,—in which the average has been only 120,000 hhds., against 154,000 for the three years which preceded the enactment of the tariff of 1846,—to little more than $82, with every prospect of a further decline, and a certainty of larger decline should the coming crop prove equal to those of the tariff of 1842. That our readers may understand clearly how *upward movement in quantity*, such as was desired by Mr. Walker, was attended by *downward movement in value*, and *vice versa*, we give them the following table :—

	Export.	Price.			Export.	Price.
1845–6,	147,998	$57		1846–7,		
1844–5,			Av. Export, 138,000	1847–8,	Average.	Average.
1843–4,			Av. Price, $52	1848–9,	127,000	$60
1842–3,				1849–50,		
1841–2,	94,000	62		1850–51,	95,000	90
1840–1,			Av. Export, 126,000	1851–52,		82
1839–40,			Av. Price, $80			
1838–9,	79,000	124				

We beg our readers now to refer to the extract from the Hon. gentleman's speech, and remark the fact that he stands pledged to satisfy his hearers—

First, That with an increase of value there had been a "vast increase" in the quantity exported; and,

Second, That he had concealed the reason why the crops of 1843–46 should not have commanded as high prices as did those which had preceded them, and as have done those which have followed them.

We have fully exonerated the Hon. gentleman from any charge of intentional misstatement; but he can hardly shelter himself from a charge of being entirely destitute of the information required to fit him for the task he has undertaken, that of leader in the defense of a system which gives us *less to export* from year to year, as our population is more and more driven into agriculture, and has then to be sustained by assertions so entirely inaccurate, and calculations so absurd as those to which we have called the attention of our readers.

To what is this reduction of prices due? Is it to any increase of production in the old planting States? It is not. The *total crop* of Maryland and Virginia, Ohio, Kentucky, and the other Western States, is estimated at 154,000 hogsheads, being the precise average quantity *exported* in the three years 1843–4 to 1845–6, and yet the price tends steadily downwards. Why it does so, is easily explained. Southern policy has killed the domestic market for food, by destroying the men who were *manufacturing* it into cloth and iron. The same policy is now destroying the foreign market for it, by killing the hogs, the horses, and the cattle, who were engaged in *manufacturing* it into pork and beef, butter and cheese; and Northern farmers are now every day being more and more driven from the production of corn, that they cannot sell, to that of tobacco, which they can sell—thus, instead of being *customers* to the planters of Maryland, Virginia, and Kentucky, they are forced to become *rivals* to them. Such is the result of the policy of 1846—a policy which forbids competition for the purchase of raw produce, and places the whole body of the farmers and planters of the country in the power of *a single buyer*, tending every where to produce competition for the production of raw commodities, and thus to augment the power of that *single buyer* over themselves and the rest of the agriculturists of the world. Such is the object and such the tendency of *Manchester* free trade.

We come now to an examination of the Hon. gentleman's statements in regard to the export of FOOD; and here the falsification is so remarkable that it is quite extraordinary that he should not himself have seen it. The fiscal year 1846 commenced running with the 1st of July, 1845, and terminated June 30, 1846. That of 1847 commenced July 1, 1846, and terminated June 30, 1847. The tariff of 1846 went into operation in December, 1846, and, of course, not until nearly half the fiscal year 1847 had elapsed. Under such circumstances, it is quite clear that, if that year does not belong to the tariff of 1842, it does not belong to that of 1847. It was, however, a great year, for it was that of famine in Europe; and, by appropriating—"the wise *convey* it call"—it for the use of the tariff of 1846, two things might be proved: first, that the average *quantities* had increased, and that the average *prices* had increased.

The skill with which some one has constructed these tables for the Hon. gentleman is manifested in another manner. In furnishing the cotton table, he gave us *five* years, including 1851, and he did so because it was a year in which, by a series of misrepresentations, the prices had been kept up on this side of the water to such an extent as to cause the nominal value of cotton to exceed by twenty-five millions of dollars the sum that was received for it, and by more than forty millions what will be realized this year from the same quantity. When, however, he arrives at breadstuffs and provisions, he finds "the boot on the other leg," and totally suppresses 1850–51 as unsuited to his purpose; whereas, by *conveying* 1846–47, the author of the tables finds himself enabled to present a statement like the following:—

1843–46,	Aggregate Exports,	$71,488,669
1847–50,	" "	171,075,393

Now, the most that can be claimed by the advocates of the tariff of 1846 is, that the year 1846–7 is *neutral ground*. We hold that it belongs to the tariff of 1842, and should be passed to its credit, because it was under that tariff that the productiveness of agricultural labor increased to an extent so wonderful as that to which we shall have occasion to call the attention of our readers—but, for the present, will throw it out altogether—doing which, the following is the result:—

1842–3,	$10,919,602	1847–8,	$37,724,643
1843–4,	17,388,816	1848–9,	38,795,664
1844–5,	16,016,902	1849–50,	26,371,756
1845–6,	27,163,449	1850–51,	21,948,653
	$71,488,769		$124,840,616

We beg our readers now to remark the steady *upward* movement under the tariff of 1842, and then to bear in mind that with each and every year there was a great increase in the domestic market for labor to be employed in making cloth and iron, and that the excess of labor so absorbed in 1846, as compared with 1842-3, represented more than a hundred million of dollars' worth of food and clothing, and that, notwithstanding this vast growth of the domestic market, the *power* to supply the world with both animal and vegetable food rose to a higher point than had ever before been seen. Under the tariff of 1846, we build neither mills nor furnaces, but we close old ones; and thus we drive all our vast growth of labor power into agriculture, and yet our export of food diminishes from year to year; and the amount of the present fiscal year is likely to be even below that of the years 1844 and 1845,

although, in the mean time, we have added about five millions to the population.

Having appropriated the year 1846–7 to the use of the tariff of 1846, the Hon. gentleman next takes *the famine prices* for the purpose of establishing *an average* of the *four* years 1846–50, most judiciously excluding 1850–51, when the price of wheat in England had fallen to less than a dollar a bushel; and having thus obtained an average, he furnishes his readers with an estimate of the loss on the crops of 1842–46 because of the tariff of 1842, and the gain on the following one because of the tariff of 1846! A proceeding more dishonest or more thoroughly contemptible than this, we have never known; and it is because we are unwilling to believe that any member of either House of Congress could be guilty of such misconduct, that we are so much disposed to believe that the Hon. member is not to be held responsible for it, and that he must be regarded as having been *used* by some artful outside member, who has made him the conduit by means of which this extraordinary series of misstatements might be brought before the world. The whole table so strikingly resembles those usually published by the *Journal of Commerce*—the most active advocate of the maintenance of British power over the farmers and planters of the world—that we feel greatly disposed to believe that to that office may the paternity of this speech be attributed. If we are wrong, and if the person who delivered this speech be really the author of the tables, we should be glad to he would publicly avow himself responsible for them.

At no period since the settlement of this country has the productiveness of labor given to agriculture increased so rapidly as in the period from 1840 to 1847. In the first of these years, the total quantity of wheat, barley, rye, oats, and Indian corn, was estimated at - - 615,522,000 bushels.

Whereas, in the latter it was estimated at 867,826,000 "

Giving an increase of - - 252,304,000 bushels,

or almost *forty per cent.;* and yet in that period we doubled the production of cotton and woolen cloth, and trebled that of coal and of iron; and hence it was that the country was so rapidly restored to prosperity after the dreadful crash produced by the working of the revenue tariff of 1841–2.

It is asserted by the partisans of Britain and the advocates of *British* free trade, that we cannot make a home market for our vast product of food. Our orator, however, assures us that we did make such a market, for he asserts that we exported little food; and, as it was certainly consumed, it is quite clear that if it did not go to the foreign market, it must have been absorbed at home. It is further asserted that our exports of food tend to increase *in quantity and value*, as indeed they should do, now that no means of employment are open to our people except agriculture; but the fact is otherwise, and the Hon. gentleman has been deceived by the ingenious person who fabricated the statements he has made.

The food supplied to the world by the Union is all of it from Virginia or the States north of it, with the exception of RICE, which, as the only product of that kind furnished exclusively by the South, we now proceed to consider by itself, with a view to determine the correctness of the Hon. member's statement that prices had risen, notwithstanding a vast increase in the quantitv exported.

In 1838–9, at which time the compromise had made but a small reduction in the amount of duty, the quantity exported was as follows:—

Tierces,....93,320 Value,....$2,460,000 Per Tierce,....$24 60

In 1841–2, when the revenue tariff had almost annihilated the manufactures of the country, it was as follows:—

Tierces,...114,617 Value,....$1,917,000 Per Tierce,....$15 70

Quantity had increased, but, as usual, value had fallen, and far less was now obtained for the large quantity than had before been obtained for the small one.

In the four years which followed, the crops were large, and the export averaged nearly one hundred and thirty thousand tierces; and yet, in the year 1845, with an export in that year of one hundred and twenty-four thousand, the amount rose to $2,564,000, and the price per tierce to $20.60, or nearly one third more than had been obtained for the small quantity in the period of *British* free trade.

In the three years from 1847–8 to 1849–50, the average export was but one hundred and nineteen thousand tierces, and yet we find the value of that of the last of those years to have been only $2,631,000, giving $20.50 as the price per tierce; and thus we have, under *British* free trade, diminution of quantity and reduction of price. In the last fiscal year, this is exhibited on a still more extraordinary scale, the export having been only one hundred and five thousand five hundred and ninety tierces, yielding $2,170,927, or $20.44 per tierce; and thus we see, that while under the tariff of 1842 there was a large augmentation of export, with tendency upwards in prices, there is, under that of 1846, a steady downward tendency in both quantity and price, in direct opposition to the fraudulent statements that the Hon. member has permitted himself to be prevailed upon to endorse.

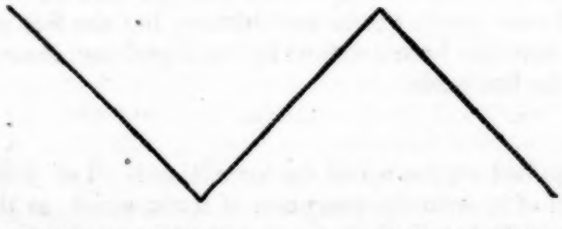
In a statement of the exports from the port of New-York in the first quarter of the present fiscal year, we find a still further difference of price and quantity, as is here shown in contrast with the last quarter of the year 1845:

1845,...Tierces Exported,...8,417	Value,...$265,424	Per Tierce,...$34 00
1851,... " ...4,425	" ... 91,515	" ... 20 70

With a view that our readers may understand accurately the movement of the whole period, we offer them the following diagram:—

1838–9—Protection. Price,....$24.60.

1845–6—Protection. Export,..124,000. Price,..$20.60.



1841–2—British Free Trade. Export,..114,617. Price,..$15.70.

1849–50—British Free Trade. Export,..105,590. Price,..$20.44.

"Prices have increased," says the Hon. member, "under free trade, notwithstanding *the vast increase* of quantity!"

It is certainly very remarkable that gentlemen whose position in life warrants us in expecting that they will themselves examine the statements they give to the world, should permit themselves to be *used* for giving currency to the very remarkable misstatements that so much abound in the honorable member's tables.

We proceed now to an examination of the trade in other articles of food; and as the main object of the Honorable gentleman's speech was that of showing how rapidly the trade of the West *will increase*, we deem it not amiss to commence by showing how *it has decreased* in quantity and value under the tariff of 1846—and how *it did increase* in both, under that of 1842.

The most valuable trade is that which consists in selling corn and hay *manufactured* into pork, beef, cheese, butter, lard, wool, &c.; and we shall therefore give first the movement of these various commodities in the three periods selected by the Honorable member: prior to the passage of the act of 1842, during its existence, and since its repeal.

The total quantity of "the produce of animals" received ON THE HUDSON, from all sources, in the revenue tariff period, was—

In 1840,	31,709 tons.
" 1841,	36,960 "
" 1842,	37,005 "

The variation, as we see, was trifling, and the total quantity was small.

In 1843, the quantity rose to	45,327 tons.
" 1844, "	46,791 "
" 1845, "	50,091 "
" 1846, "	58,559 "

And of the crop of 1846, the quantity sent to market was—

In 1847,	66,108 tons.

We have here an increase of about eighty per cent. over the period of the revenue tariff of 1841–2.

In the years that have since elapsed, the following has been the amount:

1848,	70,674 tons.
1849,	75,699 "
1850,	63,651 "
1851,	54,000 "

The decline in the receipt of the most valuable of the products of agriculture seems here to have proceeded with as much regularity and steadiness as were manifested in its rise under the tariff of 1842. Already the quantity received has fallen below that of 1846, and but little exceeds that of 1845; while, from statements given below, it appears only reasonable to expect that the current year will fall below even 1843; and yet the increase in the agricultural population using this channel of trade counts by millions, and the whole commercial policy of this country is at this moment directed towards an increase in the amount of its exports to foreign countries of food and other articles of raw produce; and for the accomplishment of that object, the mines, furnaces, and factories of the country are every where being closed, in order that their occupants may be driven to agriculture.

At Cleveland, Ohio, the movement in relation to beef has been as follows:

	1850-51.	1851-52.
Number of cattle packed,	12,700	6,500
Tierces of beef shipped,	15,700	6,000
Barrels of beef shipped,	15,000	2,700

We have here a diminution of above one half. In regard to hogs, the deficiency throughout the West is about one seventh, the quantity packed having been less by two hundred thousand than last year. Under these circumstances, we may, we think, be quite satisfied if the quantity of "the products of animals" sent to market this year from the West prove to be as great as it was in 1843, and if it prove to be *only one third less than it was from the last crop of the tariff of* 1842.

The decline that has been shown to have taken place in the receipts on the Hudson, great as it has been, appears to have been greatly exceeded at NEW-ORLEANS. We have now before us a statement of "the wonderful decrease" in the trade of that city in the last five years, from which we take the following facts :—

	1848-9.	1850-51.
Export of Pork, (barrels,) - - -	466,000	192,000
" Bacon, (hhds.,) - -	672,000	462,000
" Lard, (kegs,) - - -	1,246,000	759,000
" Beef, (barrels,) - -	60,000	43,000

We have here a reduction in two years of *more than forty per cent.*, and yet the population of the West must have grown in that period more than a million. Enormous as was the reduction in those years, it seems likely to be fully maintained in the present one, if we may judge from the following statement of the exports of the year commencing 1st September, 1850–51, as compared with those of the same period in the current year :—

	Beef. bbls.	Pork. bbls.	Bacon. Casks.	Lard. kegs.
1850–51, - - -	30,606	106,084	22,620	429,505
1851–52, - - -	25,299	88,110	20,844	383,783
Decrease, - -	5,307	17,974	1,776	45,722

Here is an average fall of almost one sixth, following closely on the heels of a reduction in the two previous years of forty per cent., and accompanying a decline on the New-York canals that will certainly bring the receipts to forty per cent. less than the point at which it stood three years since, and below that at which it stood six years since!

Six years since, the West also exported very largely of hemp and lead, and it may interest our readers to see what was the effect of the tariff of 1842 on the power of the Mississippi Valley to pay for merchandize by aid of the food fed to growers of hemp and miners and smelters of lead, and what is now the effect of the tariff of 1846? There was exported, during the following years,

Of Hemp—Bales.		Of Lead—Pigs.	
1841–2,.... 1,211	1846–7,....60,238	1842,....473,000	1847,....659,000
1842–3,....14,873	1847–8,....21,584	1843,....571,000	1848,....606,000
1843–4,....38,042	1848–9,....34,792	1844,....639,900	1849,....508,000
1844–5,....46,274	1849–50,...25,116	1845,....732,000	1850,....400,000
1845–6,....30,980	1850–51,...19,586	1846,....785,000	1851,....325,000

In the half of the present year that has elapsed, hemp has remained nearly stationary, but lead has declined twenty per cent., and the export trade in that commodity appears to be coming rapidly to an end.

The smaller the number of people engaged in consuming pork and beef, while producing hemp, and wool, and lead, the smaller, as is here seen, is the quantity of pork and beef produced, and the less the quantity that can be

exported to pay for *foreign* hemp and lead, the import of which articles has thus grown:—

	Hemp. Tons.	Cordage. Tons.	Lead. Pounds.
1845–6,	1,500	800	114
1847–8,	1,350	1,700	324,000
1848–9,	4,300	1,070	2,684,700
1849–50,	4,297	1,900	36,997,751
1850–51,	1,875	1,750	43,470,210

It will scarcely be difficult now to understand why it is that the country is so rapidly running in debt. We produce less, and are now exhausting our credit in the effort to buy that which we might produce at home; and while doing this, under the impression that we are thereby supplying ourselves in the cheapest market, we prove that it is the dearest, by the fact that, notwithstanding the great increase of population, we consume less hemp and less lead than we did five years since.

Having thus examined the trade of the West with the East, in reference to the most compact and valuable of its products, we now proceed to show what is the movement of wheat, flour, and barley, the next most valuable, as compared with Indian corn and other more bulky ones.

The receipts of vegetable food, from all sources, on the Hudson, in the revenue period of the compromise tariff, were as follow:—

	1840. Tons.	1841. Tons.	1842. Tons.
Total,	269,000	230,000	252,000
Of which—Wheat, Flour, and Barley,	254,000	203,000	210,000
Balance—Indian Corn, &c.,	15,000	27,000	42,000

We see thus that, while the products of animals increased slightly, wheat, flour, and barley largely decreased, and the inferior products of the farm increased largely in amount, and still more largely in proportion.

From 1843 to 1846, we find a great change in the opposite direction. The product of animals increased largely, as has been shown, and wheat, flour, and barley more than doubled, while the export of the inferior and more bulky products of the earth remained stationary, until the prospect of demand for Ireland, at the close of 1846, produced some increase, as is shown in the following table:—

	1843. Tons.	1844. Tons.	1845. Tons.	1846. Tons.
Total,	296,000	331,000	390,000	564,000
Wheat, Flour, and Barley,	261,000	295,000	346,000	453,000
Inferior,	35,000	36,000	44,000	111,000

We beg the reader now to remark that the *increase* in tons of animal and of superior vegetable food, in these four years, was *more than the total quantity* of the same articles received in the last year of the revenue tariff:—

Amount of 1842,	252,000 tons.
Amount of 1846,	511,000 "
Increase in four years,	259,000 tons.

Need we desire better evidence of the wonderful increase in the productive

power of the agricultural population employed in producing food during the years in which we were increasing so rapidly the production of hemp, wool, lead, iron, cloth, and coal?

Still more remarkable was the change exhibited by the crop of 1846, which came to market in 1847, during which year the continued excitement in England maintained the prices of iron and cloth, and enabled the manufacture of both to increase throughout this country with great rapidity:—

	1847.
Total, - - - - - - - - -	826,000 tons.
Of which—Wheat, Flour, and Barley, - -	586,000 "
Inferior articles of food, - - -	240,000 tons.

From that date, we find every thing remaining nearly stationary; and thus, precisely as we cease to raise hemp, to mine lead and coal, to smelt iron ore, and to convert wool and cotton into cloth, do we cease to produce food with which to pay for foreign iron, lead, cloth, and hemp:—

	1848.	1849.	1850.	1851.
Total, - - - - - - -	612,000	689,000	859,000	834,000
Of which—Wheat, Flour, and Barley,	468,000	467,000	505,000	510,000
Inferior articles, - - -	144,000	222,000	354,000	324,000

We may now advantageously compare the growth of the power of the West to maintain trade in animal food, and in the more valuable products of the field, under the tariff of 1842, with its decline under the tariff of 1846:—

	Crop 1841.	Crop 1846.	INCREASE.	Crop 1850.	DECREASE.
	Tons.	Tons.	Tons.	Tons.	Tons.
Product of Animals,.....	37,005	66,108	29,103	54,000	12,108
Wheat, Flour, and Barley,	210,000	586,000	376,000	510,000	76,000

The population embraced in the district which finds its outlet on the Hudson has grown far more rapidly in the second period than in the first, and yet the power to trade has not only not grown as rapidly, but it has absolutely and largely declined under four years of *British* free trade—the very years in which our power to export food was to grow so rapidly that it was now to count by hundreds of millions of dollars!

There has, however, been an increase. The coarser and less valuable of the products of the earth now come to market by hundreds of thousands of tons; and the last three years exhibit a receipt of these to the extent of almost nine hundred thousand tons, against one hundred and fifteen thousand tons in the years from 1843 to 1845. Instead of adding twenty-five thousand tons to the export of pork, as was done from 1843 to 1846, the people of the West now send the two hundred thousand tons of corn that would have been required to feed the hogs that would have made the pork, and they pay the freight on two hundred thousand tons when they might have paid it upon only twenty-five thousand tons. Why, our readers will ask, should they do this? In answer, we say that, when the farmer of Ohio protects the men who mine his ore and make his iron, he protects himself in raising hogs and cattle, and then he returns to the land the manure yielded by the food fed on the land; and when he closes the furnace and drives away the miners and smelters of iron ore, he ceases to *manufacture* his food into pork, and beef, and lard, and then he exports his corn, and gives his land no manure, after which he runs

away himself. In proof of this, we request the attention of the reader to the following facts:—

In 1846, the number of hogs in Ohio was 1,405,621
The growth of that year was so great, that in 1847 the number was 1,766,000, and in the following year it was 1,877,000
Being an increase of 472,000, or thirty-three per cent.
In 1850, we find them reduced to 1,529,737
And in 1851 to..... 1,345,814

or below the point at which it stood six years since. A similar state of things is seen in reference to cattle, which in 1850 were 1,153,517 in number, and in 1851 only 995,179; and the tendency of things being downward, we may be quite sure that the number of hogs and cattle sent to market in the next season will be greatly less than it has been in the present one; and thus it is that *British* free trade promotes agriculture. An exclusively agricultural population never to any extent *manufactures* its food into pork, beef, butter, or cheese. In order that it may do so, it must have a consuming population near at hand—the men who drive the shuttle and strike the hammer taking their places by the side of the plough and the harrow. With a view to show the difference resulting from bringing the manufacturer near to the agricul turist, in accordance with the views of Mr. Jefferson, we give the production of several articles in the three States next adjoining Canada; and to show the deleterious effect of separating the manufacturer from the agriculturist, in accordance with the views of Mr. ex-Secretary Walker, we place side by side with them Upper Canada, leaving to our readers to determine for themselves the reason why the latter is compelled to beg for the admission of her products into the Union:—

	Ohio. Pop. 1,980,408.	New-York. Pop. 3,097,000.	Vermont. Pop. 314,120.	Upper Canada. Pop. 723,000.
Butter, (pounds,)	34,180,458	82,043,823	12,128,095	3,380,406
Cheese, "	21,350,478	49,785,905	6,755,006	668,357
Wool, "	10,089,607	10,021,507	3,492,687	2,239,756

Throughout the world agriculture has become productive, and the agriculturist has become rich, as a market was more and more made on the land for the products of the land, because he was thereby enabled to enrich his land. The hog *manufactures* the corn into manure, with which to enrich the land. Kill this manufacturer of manure, and sell the corn, and the land becomes impoverished, and the State is weakened by the desertion of the land by its people.

In two years, the *increase* in the number of hogs in Ohio was four hundred and seventy-two thousand. In 1848, *the whole number* in Upper Canada was but four hundred and eighty-four thousand, and the *increase* in six years was but ninety thousand. If our readers desire to know the cause of this, we would recommend them to take up the Patent Office Report for 1847, issued during the administration of Mr. Walker, and there (p. 529) study the variety of uses to which are applied various parts of the hog that would be valueless but for the existence of consumers on or near the land, and they will then have no doubt as to the cause why a population that is divided into producers and consumers cannot only *consume more*, but have also *more to export*, than one wholly composed of producers of food. The facts here given as regards Canada speak volumes in confirmation of this:—

1850.	Imports.	Exports.
Cheese, (tons,) - - - - -	112	8
Salt Meats, (tons,) - - - -	441	500
Lard—Value, - - - -	£6,243	£947

Give Canada manufactures, and she will then export pork, cheese, and lard. Extinguish the manufactures of the Union, and we shall soon cease to export any of those articles.

With the decline of the home market for corn, resulting from the gradual cessation of the *manufacture* of pork, beef, butter, cheese, hemp, and lead, the *bulk* of the receipts on the Hudson increases, but the *value* per ton diminishes now, as it did in the period from 1840 to 1842, as will be seen by the following table of the quantity and value of agricultural produce received during the period embraced in the statements of the Hon. member:—

	Tons.	Total Value.	Value per Ton.
1838,	182,000	$15,642,000	$86
1839,	163,000	12,105,000	74
1840,	302,000	16,293,000	54
1841,	270,000	16,994,000	63
1842,	293,000	15,662,000	53

At this point the trade of the country was found by the tariff of 1842. For three years, the whole quantity of produce arriving at market had remained stationary, in the neighborhood of three hundred thousand tons, and the average value of the last year was the lowest of all. We now proceed to show the working of the tariff of 1842, the object of which was that of encouraging the manufacture of corn into pork, and pork into candles and soap, and iron and cloth, and the thousands of other good things required for the uses of man, as follows :—

		Total Value.	Value per Ton.
1843,	Tons, 346,000	$18,211,000	$53
1844,	" 383,000	21,020,000	55
1845,	" 447,000	27,612,000	62
1846,	" 628,000	33,662,000	54

In this last year, the effect of bringing to market a large quantity of corn is clearly shown in the reduction of the average price. Without, however, claiming any allowance for this, we are content to exhibit the extraordinary fact that the quantity had largely increased from year to year, and that in the last it was much more than double the average of the years from 1840 to 1842, with an increase in the average value, and a large increase, if we throw out of view the additional corn sent to market in the expectation of a foreign demand.

Of the crop of 1846, sent to market in

	Tons.	Value.	Value per Ton.
1847, the quantity was	897,000	$54,624,000	$60

The years which now follow are those of the tariff of 1846.

1848, "	695,000	37,336,000	54
1849, "	769,000	38,445,000	50
1850, "	926,000	39,311,000	42
1851, "	895,000	36,357,000	40

We beg our readers now to mark the fact that the total value of the exports of the West, by way of the Hudson, is in a gradual course of decline, and that it is now only *eight per cent.* greater than it was in 1846, while it is *one third*

less than it was in 1847; and then to remark that no one year from 1838 to 1842 reached *seventeen* millions, while the average of the four succeeding years—those of the tariff of 1842—was *twenty-five* millions, and the last year was almost *thirty-four* millions; and yet the system of that day was, according to the Hon. member, the one that was to destroy trade, while that of the present day, under which trade declines from year to year, is the one that is to increase trade.

The population of the country that looks to an outlet on the Hudson might be taken in 1838, the year in which the Hon. member commences his calculations, at three millions five hundred and fifty thousand. In 1840, it was three millions eight hundred thousand; and in 1850, five millions seven hundred thousand.*

In the first seven years from 1838 to 1845—those years that immediately preceded and followed the explosion brought about by the revenue tariff of 1841—the growth of the Western States was slow. Immigration was small during nearly the whole period, for it required years for the people of Europe to learn that the tariff of 1842 had again made a demand for labor. In the following table is given the population for each successive year, the total value of produce received on the Hudson, and the value per head of the population by which it was supplied :—

	Population.	Value of Exports.		
1838,	3,550,000	$15,642,000	Per head,	$4 39
1839,	3,675,000	12,105,000	"	3 30
1840,	3,800,000	16,293,000	"	4 26
1841,	3,950,000	16,994,000	"	4 30
1842,	4,100,000	15,662,000	"	3 80

At this point it was found by the tariff of 1842, and thereafter, for four years, the following was the movement :—

1843,	4,250,000	$18,211,000	Per head,	$4 28
1844,	4,400,000	21,020,000	"	4 80
1845,	4,550,000	27,612,000	"	6 06
1846,	4,750,000	33,662,000	"	7 06

The continued influence of the famine in Ireland, and great prosperity at home in all departments of employment, kept it up for the two succeeding years, in which the movement was as follows :—

1847,	4,950,000	$54,624,000	Per head,	$11 00
1848,	5,200,000	37,336,000	"	7 18

Having arrived at this point, we now find a decline, which would be still more rapid were we to take into consideration the fact that the increased facilities for communicating with the New-York Canal have caused the transfer of a large amount of trade from New-Orleans to New-York. "The North," says one of the New-Orleans papers, "has been gradually taking away from us the trade of the Mississippi Valley. . . . The annexed statement," it continues,

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* These quantities are obtained by taking one third of the population of New-York, and all that of the States north and west of the Ohio. Whatever errors there may be in this balance each other, as the same system is pursued throughout.

"shows the decrease in our exports of produce for the last year, which is truly alarming:—

In 1848-9, the Exports were		In 1850-51, the Exports were	
Barrels Flour, - -	778,000	Barrels Flour, - -	583,000
Barrels Pork, - -	466,000	Barrels Pork, - -	192,000
Hhds. Bacon, - -	672,000	Hhds. Bacon, - -	462,000
Kegs Lard, - -	1,246,000	Kegs Lard, - -	739,000
Barrels Beef, - -	60,000	Barrels Beef, - -	43,000
Corn, - - -	1,465,000	Corn, - - -	535,000

"The whole commerce of the State has wonderfully decreased during the past five years."

Population.	Value of Exports.	
1849,....5,450,000	$38,455,000	Per head, ...$7 05
1850,....5,700,000	39,311,000	" 6 89
1851,....6,000,000	36,357,000	" 6 06

We have thus arrived at the point at which we stood six years since, when the country had just begun to recover from the disasters of the period from 1838 to 1842; and, were we to claim all the allowance that should be made for the gradual tendency of New-York to absorb the trade of Canada and of the Mississippi Valley, the amount of exports would certainly be found to be less than *five dollars* per head. If, now, to this be added the enormous diminution in the export of lead, hemp, &c., &c., by way of New-Orleans, it will be seen that the capacity of the West to pay for what it needs to purchase is diminishing at a rate that is, like the diminution of the trade of New-Orleans, only to be characterized by the expression "alarming." Wonderful as is even this decrease, it is likely to be far exceeded this year, as is seen from the following facts:—

Receipts at New-Orleans from Sept. 1.	1850-51.	1851-52.
Bacon and ham, hhds. and barrels, -	59,773	38,051
Flour, barrels, - - - -	637,753	477,914
Lard, barrels and kegs, - - -	160,824	136,960
Pork, barrels, - - - -	182,673	130,473

To compensate for a decrease of above *fifty thousand barrels* in the quantity of pork, and *one hundred and sixty thousand* of flour received, we have an increase of one hundred and seventy thousand sacks in the supply of corn that should have been *manufactured* into manure by the hogs that have disappeared from Ohio and other parts of the West.

At the North, we have the same story—more corn and less pork and wheat—as is shown in the following extract from the *Buffalo Commercial Advertiser*:—

"There will be considerably less grain from Lake Michigan than last year, in the aggregate. There will be but a very trifle of wheat, and that very poor. We shall get double the corn from the railroad we did last year."

In another part of the same article, it is said that the quantity of provisions will be about the same as last year; but, should that prove to be the case, it will be a consequence of a still further decrease in the supplies to New-Orleans.

The facts already given will probably account for the further fact mentioned in the concluding paragraph of the Buffalo editor, which is as follows:

"Western merchants are very poor this winter; collections have been difficult to make, and the consequence will be, that few goods will come to Illinois and Wisconsin this spring."

The *Chicago Democrat* informs us that "there is no demand for land at the prices of the past season;" that the farmers are every where trying to borrow

money, and "can hardly pay the interest;" that this year "they can scarcely make their ordinary expenses balance, and have nothing to expend on lumber;" and that nothing but the negotiation of a foreign loan can avert *the storm which now threatens that whole region of country.*

In confirmation of this, we learn from a Wisconsin Democratic paper that

"The low price of grain, and the partial failure of crops, has thrown the State almost entirely upon the mines for cash resources, showing the important fact that Wisconsin depends almost entirely upon her mineral resources for a cash capital;" and the editor expresses the opinion, that "it would be but following the dictates of self-interest to pay a little attention to the further and more rapid development of our mineral wealth."

Unhappily, however, the policy of the country is adverse to the working of the lead mines of Illinois or Wisconsin, or the coal and iron mines of Ohio and Indiana, and the effect is seen in the fact that men are every where cutting the throats of their hogs, their cattle, and their sheep, and abandoning their lands to fly to seek elsewhere the prosperity denied them at home, as we see by the following paragraph, which is furnished by another Western journal:

"This great exodus begins to affect business seriously. Rents are falling, and labor advancing. Landlords are now looking for tenants instead of tenants for farms, as heretofore. Farms on the great Lawrenceburg bottoms, that last year were leased at a rent of four thousand five hundred bushels of corn, are this year offered for three thousand six hundred bushels; and well-stocked farms are for sale in all parts of the country, at great sacrifices, by persons who are preparing for California."

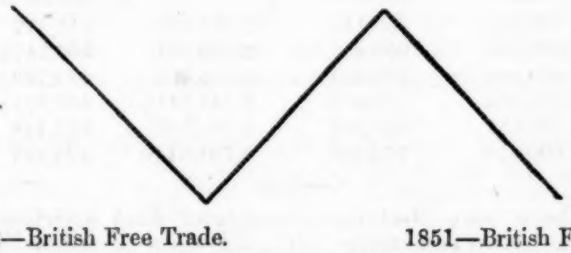
The more corn men are obliged to send abroad, the poorer they grow. The more corn that is *manufactured* into pork, beef, lard, butter, cheese, hemp, lead, iron, and cloth, the richer they grow, and they do so in full accordance with the doctrine of ADAM SMITH, who taught that the natural place for the artisan was by the side of the producer of the food and other raw materials—eating the one while fashioning the other for cheap transportation to distant markets. "England," says Mr. William Brown, a Free-trade member of the British Parliament, "is the greatest exporter of food in the world, because she passes it all through that great machine the human stomach, and thus economises transportation by sending it abroad in the forms of cloth and iron." The people of the West are now not only ceasing to pass the food through their own stomachs, that it may come out in the compact forms of lead or hemp, but they are ceasing to pass it through the stomachs of the hog or the ox, that it may come out in the somewhat compact forms of pork or beef, or through that of the sheep, that it may come out in the form of wool, the export of which from the West diminishes from year to year.

The following diagrams represent the facts to which we have desired to call the attention of our readers:—

Receipts on the Hudson.

1838—Protection. 182,000 tons. Value per ton, $86.

1846—Protection. 628,000 tons. Value per ton, $54.

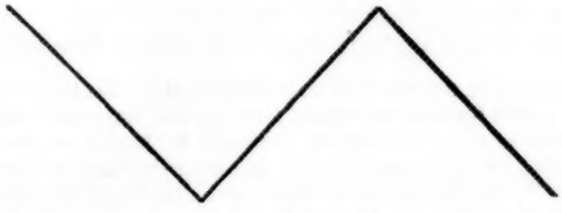


1842—British Free Trade. 293,000 tons. Value per ton, $53.

1851—British Free Trade. 895,000 tons. Value per ton, $40.

Receipts on the Hudson.

Value per head of 1838,..$4.39. Value per head of 1846,...$7.06.



Value per head of 1842,...$3.80. Value per head of 1852,...$5.

The supply of food to the East is rapidly diminishing, and yet the farmers of the West are every where complaining of the low price of grain. Wheat has touched a lower point in the last year than it has seen for many years, and yet we see that the quantity sent to market is far less than it was five years since. One great reason for this may be found in the fact that the policy of the government has deprived an important portion of the people of the power to earn wages, by aid of which to enable them to consume either food or clothing, while another large portion of the farmer's old customers has been driven to a part of the world in which they consume other produce than that yielded by the lands of the Mississippi Valley. Chili gains the market that Illinois and Wisconsin lose, as is seen from the following paragraph :—

"The commercial and financial affairs of Chili are at present in a very prosperous condition. Her imports for the past twelve months exceeded thirteen millions of dollars, one and a half millions of which was from the United States. *Her exports, consisting mainly of flour, wheat, barley, beans, copper, and silver, were equal to her imports.* . . . She is indebted mostly to California for this prosperous exhibit of her resources, the gold discovery there having, thus far, resulted in more general and permanent good to her citizens than any other part of the world, not only by opening an accessible market for her surplus products, but enhancing their value *an hundred-fold.*"

The policy of the last administration has given to Chili a market for her wheat and her flour, the price of which has enormously increased, and the consequence is, that she imports largely, and pays for what she imports. It has gradually closed the great domestic market for the products of the Valley of the Mississippi, and compelled it to depend upon a small and more distant one, the consequence of which is, that its *power* to furnish food to the *barren Atlantic slope*, OVER *which the future commerce of this country is to pass*, has diminished from year to year, as the policy of the nation has tended more and more to separate the plough and the hammer from the loom and the anvil; and bonds, bearing interest, are every where being issued for the difference.

What has been the course of things in other cities than New-York, for six years past, may be seen by an examination of the following table :—

Crops grown in	Barrels Flour at Boston.	Barrels Flour at Baltimore.	Bushels Corn	Bushels Oats at Philadelphia.	Bushels Rye
1845,.....	743,123	850,116	2,374,484	414,417	17,160
1846,.....	1,020,497	959,416	2,560,191	533,147½	52,972½
1847,.....	909,595	736,441	3,525,404	433,293½	67,048
1848,.....	1,007,964	764,519	2,948,811½	456,771½	46,231
1849,.....	789,681	896,592	2,180,326½	247,448	44,746
1850,.....	690,520	912,498	2,158,674½	495,191	27,670

It has now been seen that the quantity of food arriving at tide-water increased with wonderful rapidity under the tariff of 1842; and, further, it

has been seen that the value per ton steadily increased. To what this increase of value was due, we propose now to inquire. The Hon. member desired his hearers to believe that with British free trade exports increased and prices improved, while with the adoption of protection the foreign trade declined and prices fell off. If so—if exports diminished in amount while receipts from the West so largely increased—it must have been because domestic consumption so largely increased. If, however, it be shown that it has been with the advance of the country towards *British* free trade that exports have diminished and prices have declined, and that it was under the tariff of 1842 that the upward progress in the amount of exports and in the prices of the commodities exported took place, what shall we then say of the statement of the Hon. gentleman, when he assured his hearers that there had been a great rise of prices, notwithstanding the "vast" increase in the quantity exported?

The following table exhibits the exports to foreign countries of food in the first and last years of the period first referred to in the Hon. member's speech, the former being a year in which protection was still high, and the latter being the last year of the strictly revenue tariff of 1841–2 :—

	1838-9.		1841-2.	
Exports of	Quantity.	Value.	Quantity.	Value.
Beef and pork, tons,*	13,886	$2,148,876	51,953	$3,842,041
Butter and Cheese, tons,	471	127,550	2,250	388,185
Wheat, bushels,	96,325	144,191	817,958	916,616
Flour, barrels,	923,151	6,925,170	1,238,602	7,375,356
Corn, bushels,	162,306	141,095	600,308	345,150
Corn Meal, barrels,	165,672	658,421	209,199	617,817
Rye Meal, barrels,	29,458	145,448	34,190	124,396
Horses, Mules, Ship Bread, &c.,*		837,917		954,474
Total, - - - - -		$11,128,668		$14,564,035

We find here, under *British* free trade, an increase of quantity, but it is in vain that we seek an increase of price. Beef and pork had almost quadrupled in quantity, and yet the value fell far short of having even doubled. Butter and cheese were almost five times greater, and yet their value had only trebled. Wheat had increased almost nine times, and its value but little more than six times. Flour had increased in quantity one third, and its value had remained nearly stationary. Corn had fallen from eighty cents to less than sixty cents, and the general result appears to have been, that while the quantity had increased *seventy-five per cent.*, the value had increased only *thirty per cent.*

We beg our readers now to turn to page 595, and to remark the fact that the receipts of produce on the Hudson for both 1841 and 1842 were considerably less than they had been in 1840, and yet that so small was the domestic demand that the quantity that needed to find a market in foreign countries almost fully equaled that receipt, the natural consequence of which was a great reduction of prices, as has been shown. *At this point, the tariff of* 1842 *found the trade in food with the foreign world*, and we have now to see the effect of large harvests, such as this country had never before witnessed. From 1840 to 1842, the receipts had been only 302,000, 270,000, and 293,000 tons. For the next four years they were 346,000, 383,000, 447,000,

* For the sake of facilitating comparison, pork, beef, hams, lard, and hides, are included under this head; and this course was indeed rendered necessary by the fact that, in several cases, the Treasury Reports do not give the separate values of the different commodities. In converting barrels, &c., into tons, the same course has been pursued in every case, and therefore, if errors exist, they balance each other.

and rising finally to 628,000 tons. How this enormous increase affected prices will be seen by an examination of the export of 1845–6, which is here placed side by side with that of 1841–2 :—

	1841-2.		1845-6.	
Exports of	Quantity.	Value.	Quantity.	Value.
Beef and Pork, tons, ...	51,953	$3,842,041	71,500	$6,358,092
Butter and Cheese, tons, ...	2,250	388,185	6,050	1,063,087
Wheat, bushels, ...	817,958	916,616	1,613,795	1,681,975
Flour, barrels, ...1,238,602		7,375,356	2,289,476	11,668,669
Corn, bushels, ...	600,308	345,150	1,826,068	1,186,663
Corn Meal, barrels, ...	209,199	617,817	298,790	945,081
Rye Meal, barrels, ...	34,190	124,396	38,530	138,110
Horses, Mules, Biscuits, &c.,		954,474*		1,556,781
		$14,565,037		$24,598,458

The export had increased seventy per cent., and this, too, under a system that was to destroy our commerce with the world. In the face of crops unexampled in the history of the country, pork and beef had risen from $74 to $89 per ton: butter and cheese had trebled in quantity, and risen in price from $172 to $175 ; corn had risen from fifty-seven and a half to sixty-four cents, and corn meal from $3 to $3.20 ; while wheat, which had almost doubled in quantity in this brief period, fell from $1.12 to $1.04 ; and flour from $6 to $5.09.

As yet, however, the country was but beginning to recover from the calamities of the period of 1841–2. It had required a long period to get into operation the old mills, furnaces, and mines, closed in 1842, and still more time was needed to bring about the state of things required to promote the building or opening of new ones ; and if we desired to ascertain the real effect of the tariff of 1842, we should seek it in 1847 or even 1848, for up to this latter year the tariff of 1846 had scarcely any influence, owing to the high prices of every thing abroad, and this the Hon. gentleman should know.

Side by side with the last year of the tariff of 1842, we now place the last year of the tariff of 1846, under which the demand for food to "feed the hungry" of Europe was to rise to hundreds of millions of dollars, with great augmentation of prices :—

	1845-6.		1850-51.	
Export of	Quantity.	Value.	Quantity.	Value.
Beef and pork, tons, ...	71,500	$6,358,092	63,350	$6,057,973
Butter and Cheese, tons, ...	6,050	1,063,087	9,627	1,124,652
Wheat, bushels, ...1,613,795		1,681,975	1,026,725	1,025,732
Flour, barrels, ...2,289,476		11,668,669	2,202,335	10,524,331
Corn, bushels, ...1,826,068		1,186,663	3,426,811	1,762,549
Corn Meal, barrels, ...	298,790	945,081	203,622	622,886
Rye Meal, barrels, ...	38,530	138,110	44,152	120,670
Horses, Mules, Biscuit, &c., ...		1,556,781		728,396
		$24,598,458		$21,967,189

Beef and pork have decreased in quantity, with a trivial increase of price ; butter and cheese have increased *sixty* per cent. in quantity, while the total value has grown *six* per cent. ; wheat has diminished in both quantity and price ; flour has fallen off in quantity, and price has fallen to $4.75. The

* Throughout these tables, we have given the whole agricultural exports of the Northern States, because of the difficulty of separating hogs from pork, cattle from beef, &c., &c. Hogs and cattle, horses and mules, are but another form in which to export corn or oats.

yet more valuable articles of export have declined more than one half; while corn—the corn *that should have been manufactured into pork*—has almost doubled, with large diminution of price; and yet the Hon. member assures the nation that prices have increased, notwithstanding "a vast increase of quantity."

We beg our readers now to remark that the quantity of "the products of animals" received on the Hudson in 1851 was precisely the average of the years 1845 and 1846, *six years since*, and that the total receipts at New-Orleans and on the Hudson of the crop of 1845 exceeded the total receipts of the crop of 1850 at least five thousand tons, being almost the same quantity that the export of 1845–6 exceeded that of 1850–51. From this, it follows conclusively that, notwithstanding the five years' growth of population in all the States east of the mountains, the consumption of animal food, the produce of the West, has not increased; and that, therefore, the power of the people to purchase food has diminished.

Being desirous to give our readers, as far as in our power, the latest state of the trade of the country in corn and hay, *manufactured* into pork, butter, cheese, &c., we have procured a return of the exports of New-York for the first quarter of the present fiscal year, and now give it side by side with a similar return for the closing quarter of the civil year 1845, a period long anterior to the existence of any suspicion of the occurrence of a famine in Ireland:—

	1845—Last Quarter.		1851-52—First Quarter.	
Pork and beef, tons,.....9,165		$679,097	4,117	$426,096
Cheese and butter, tons,..2,200		333,728	485	86,432
	11,365	$1,012,825	4,602	$512,528

In the first period, exports were large and the product was large. In the last, the former has diminished almost sixty per cent., while the diminution of value has been only fifty per cent.; and thus, examine the matter where we may, we find that price rises with diminished export, while it falls with increased export; and therefore, that the true mode of raising the price of produce is to make a market at home. This, too, would seem to be quite in accordance with the views of the Hon. member, for he tells his hearers that the farmer must bear the cost of going to market, and it is assuredly farther for him to carry his food to Europe than to exchange it at the neighboring mill, mine, or furnace.

Such having been the state of the export trade of NEW-YORK in the most valuable of the products of agriculture—those by the production of which the land is enriched—we will give the total export of NEW-ORLEANS, from the 1st September last to the latest dates, as follows:—

	Beef. Barrels.	Pork. Barrels.	Bacon. Casks.	Lard. Kegs
Cuba, - - - - - -	15	252	581	81,654
Other foreign ports, - -	283	3,496	45	991
	298	3,748	626	82,645

We have here an export of about eighteen hundred tons in a period of half a year, from the great outlet of the Mississippi Valley, and that under a system that was to enable us to "feed the hungry" of the hundreds of millions of the Eastern hemisphere! At the close of the fifth year of the Manchester system, whose "benign influence" was to give us by this time a trade in food

amounting to hundreds of millions of dollars, the whole trade of that great valley with the foreign world, through the outlet of New-Orleans, in the really valuable articles of export, was sufficient, *in six months*, to load *a single one of several ships recently built in New-York!* So ludicrous a failure as this is not, as we think, recorded in the annals of history.

Believing that it may interest our readers to see the present progress of the trade in another important article of food, we give from the same document the following account of the export from the port of New-Orleans:—

		Sugar and Molasses.		
	Hhds.	Barrels.	Hhds.	Barrels.
September to March, 1850,.....	33,520	3,628	989	59,623
" 1851,.....	26,884	3,443	—	47,731
" 1852,.....	21,351	1,361	134	50,919

We have here a decline of about twenty-five per cent., accompanying a steady increase of population. The more corn we export, the less pork, beef, cheese, butter, hemp, lead, sugar, and molasses we make, the more rapidly we exhaust the land, impoverish the farm, and weaken the State and the nation; and yet the Hon. member assures his hearers that not only has quantity *vastly* augmented but that prices have risen, and the nation is advancing rapidly in the road to prosperity!

The object of the author of the tariff of 1846 was that of increasing our trade in food with the people of Europe. If we would consent *to receive their fabrics at low duties*, they would permit us to feed their hundreds of millions of people, and the trade with them in food would speedily exceed that in cotton, great even as that was destined to be. How wonderfully the Hon. Secretary's anticipations have been realized, the following figures will show:—

Export of Food, exclusive of Rice, to the Continent of Europe.

Wheat,	$496	Brought forward,	$5,598
Flour,	4,938	Rye, Oats, &c.,	11,270
Indian Corn,	160	Apples,	175
" Meal,	4	Potatoes,	51
Total,			$17,094

Such is the market afforded by Continental Europe to the whole grain-producing portion of the Union!

Having examined these figures, we beg our readers to re-peruse Mr. Walker's magnificent anticipations in regard to feeding the hungry and clothing the naked of Europe, and then to determine if the world has ever exhibited a case in which intelligent people permitted themselves to be so misled as were those of our farmers who lent their aid to the demolition of the structure raised under the tariff of 1842, which was so rapidly making a market on the land for all the products of the land. It was, however, with ENGLAND that the great market was to be made. She it was that was to supply the fabrics, and, provided we would agree that, so far as we were concerned, she should be the *sole buyer* of cotton and other raw products of the earth, and the *sole seller* of cloth and of iron, she was to purchase from us food to the extent of hundreds of millions of dollars. How far this anticipation has been realized, the following figures, exhibiting the export of bread-stuffs and provisions to Great Britain and Ireland, will show:—

Food Exported to Great Britain.		Food Exported to Great Britain.	
1845–6,.....	10,392,239	1848–9,.....	23,699,891
1846–7, (famine year,)	27,843,156	1849–50,.....	12,271,063
1847–8,.....	19,538,846	1850–51,.....	8,104,253

What is now the export of pork, beef, cheese, and butter, we have already shown, and what it has been, in the last six months, of other articles of food, the following figures will show:—

	Flour. Barrels.	Corn Meal. Hhds.	Wheat. Bushels.	Corn. Bushels.
Sept., 1850, to March, 1851, ...	790,209	2,987	787,999	375,000
Sept., 1851, to March, 1852, ...	511,001	1,680	1,282,003	504,026

More corn and less corn meal, more wheat and less flour, more vegetable food and less of it *manufactured* into pork, beef, butter, cheese, and lard; and thus, while the manufacture of food into lead and iron is rapidly diminishing, there is a steady increase in the necessity for depending on England for the use even of machinery for the manufacture of corn into meal, and corn and meal into pork and beef. Mr. Walker assured the nation that we could not make a market at home for all the vast surplus of our products, and the remedy he has applied has consisted, not in increasing the market, but in so far diminishing the supply that it may well be doubted if, after the present year, we shall export to Europe *a single barrel* of pork, beef, butter, or cheese, although, from the diminution of the domestic demand, corn will probably be cheap enough, if the people of England will be content to substitute it for wheat. Our readers will now understand the sort of fraud—we can give it no other name—perpetrated by the fabrication of the tables used by the Hon. gentleman. The famine of 1846 raised prices throughout Europe, and its effects were felt not only in that but succeeding years. So long as they continued to be felt, our export was considerable, and all the effects of the famine were appropriated, as they now are appropriated, by the friends of the tariff of 1846; and our orator, after excluding the bad year 1850–51 because it did not suit his purposes, either in quantity or prices, furnishes an estimate of a loss of between forty and fifty millions to the farmers on the export of food, *because the tariff of* 1842 *was accompanied by no famine in Europe.* Tricks such as this are unworthy of a man with the slightest pretensions to statesmanship, and we are weary of exposing them, but having commenced the task, must go through to the end.

At the moment when this article is going to press, we have received the advices by the *Pacific*, and now give our agricultural readers the latest accounts, that they may see what are the markets there afforded them, even under the influence of the short crops of nearly all the Continent, and the scarcity that has since become so obvious.

"Continental rates continue altogether out of range; and so far from drawing large supplies to this country, as usual, there is every prospect of our experiencing a steady demand for wheat and flour for export to Germany; this state of things, and the encouragement given by the abolition of duties in the states of the Zollverein, have not, however, produced an immediate effect; on the contrary, the dull advices from London this morning contributed rather to increase the depression previously existing. Our market this morning was tolerably well attended, but the wheat trade opened slow, and a decline of 2*d.* per bushel was generally conceded, at which reduction a moderate amount of business was effected before the close. American flour was pressed for sale from the quay, and several thousand barrels changed hands at 1*s.* per barrel less than this day week."—*Mackin & Co's. Circular.*

"Breadstuffs.—The continued depression in flour and wheat has made holders anxious, and a disposition is now shown to press sales. The best brands of Philadelphia and Baltimore flour find buyers with difficulty at 21*s.*; Western Canal and Canadian are dull at 21*s.* 6*d.*; Ohio sells in mere driblets at 22*s.*; Philadelphia white wheat, ex steamer, has been sold at 6*s.* 4*d.*; and other sorts have declined in proportion."—*McHenry's Circular.*

Such being the famine price of flour—five dollars a barrel, freight, duty,

and commissions paid—it remains to be seen what will be the prices when there shall be another full crop.

From one of these circulars we take the following, in illustration of the benefits derived by agriculture from the separation of the producer and the consumer:

"The imports from Ireland consist chiefly of oats and oatmeal. . . . The Irish markets [for food for man] are now supplied in a very trifling proportion with native produce." How, indeed, could it be otherwise? So long as agriculture was in some degree protected, the people of that country could *manufacture* their food into pork, if they could not be permitted to convert the pork into cloth or iron; and thus we see that the export of hogs from that country had grown so rapidly, that in the first *four months* of 1846 it supplied England with no less than 156,000; whereas, in *the whole* year 1849, the export was but 68,000. The hogs that were accustomed to *manufacture* manure have disappeared from the land as they are now doing from Ohio and the other Western States. The destruction of Irish agriculture has followed closely upon the destruction of Irish manufactures—and the same course of things is now to be seen on this side of the Atlantic.

"Not only," says our orator, "have the prices grown, but there has been a vast increase of quantity." With how much truth this was said in regard to cotton, tobacco, or the various articles of food, the reader may now determine for himself. The same assertion is made with regard to various other articles, but the only one that is so far particularized as to enable us to notice it is ASHES, a very small one it is true; but we notice it because we desire to show our readers that the parties who prepared these statements for the Hon. gentleman have carried into every portion of them the same system of fraudulent misrepresentation that has been heretofore exposed. The quantity of ashes received on the Hudson in the last twelve years has been as follows:—

1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	1850.	1851.
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
8,853	10,773	10,847	20,379	21,080	20,064	12,202	9,740	9,883	8,091	13,355	7,00¢

It is here seen that there has been "a vast increase" of quantity whenever the farmers were protected in their efforts to draw the artisan to their sides, and as extraordinary a decrease whenever protection was withdrawn and *British* free trade made the law of the land. The reader will determine for himself what reliance is to be placed on the judgment of a member of Congress who permits himself to be used to give currency to such perversions of facts. Here, as every where else, increase of price has resulted from diminution of supply, and that supply has diminished under a system that looked to converting all our population into farmers, and extending the trade in raw products to hundreds of millions of dollars, in return for which we were to receive the manufactures of England and of Europe.

Great, however, as is the diminution above exhibited, the real one must be far greater, as we have now before us, in the Trade and Navigation Reports of Canada, evidence that the value of ashes exported to this country in 1850 was $442,000: and if this be deducted from our exports to other countries, the latter will be found to have dwindled to the miserable sum of $207,000.

The Hon. member has furnished us with a statement of the losses to the country from the tariff of 1842, in the reduced prices at which we had been

compelled to supply the world with FISH, and the gain to the country from the tariff of 1846, under which prices have increased, notwithstanding "the vast increase of quantity;" and representing as he does a district that receives from the treasury a large bounty on fish, it might be supposed that he would have taken the trouble to make himself acquainted with the facts of the case. We regret, however, that in this instance, as in all others to which we have referred, he has failed to do so, and has permitted himself to be deceived by the fraudulent statements published in so many of the *British* free trade papers of the day, as our readers will see by an examination of the following facts:

In 1838–9, when protection still continued, and before the utter ruin which, under the revenue tariff, fell upon all the manufactures of the country, the following was the state of the trade in fish:—

Quintals exported,..256,000* Value,...$840,538 Per Quintal,...$3.40

In 1841–2, under the revenue tariff of that period, it was as follows:—

Quintals exported,..346,000 Value,...$730,107 Average,...$2.10

The quantity had thus increased nearly forty per cent., while the total value had declined about fourteen per cent., and the price per quintal had declined almost forty per cent. In this state of extreme depression, it was found by the tariff of 1842, and time was needed to bring about a balance between product and consumption, and this was being done, as is shown by the following statement of the operations of the year 1845–6:—

Quintals exported,..389,701 Value,....$930,094 Per Quintal,..$2.40

The quantity had grown nearly twelve per cent., and the amount received for it twenty-seven per cent., while the price per quintal had grown twelve and a half per cent.

In 1848–9, the following was the movement:—

Quintals exported,..248,722 Value,...$512,177 Per Quintal,..$2.06

Instead of price increasing under the tariff of 1846, with a vast increase of quantity, we have here quantity and price both diminishing, the whole amount received having been little more than the half of what was received in 1845–6, while the reduction in quantity had been little more than one third.

In the following year, 1849–50, we find a further diminution in quantity, and now the price is restored to that at which it stood in 1845–6, and this restoration is obtained at the cost of one half of the trade that was maintained in 1845–6—the period of thorough and complete protection—as is here shown:—

Quintals exported,..207,560 Value,..$456,793 Per Quintal,..$2.40

The following year gives a further reduction of quantity with increase of price, thus establishing the correctness of the views of those who teach that the way to obtain large prices abroad is not to increase the quantity seeking a foreign market, but to adopt that policy which tends to make a market at home, as was so rapidly being done under the tariff of 1842:—

Quintals exported,..195,000 Value,..$481,661 Per Quintal,..$2.46

Desirous to bring this statement down to the latest possible moment, we have procured a return of the exports of the port of New-York for the first

* To facilitate comparison, barrels and kegs are here reduced to quintals.

quarter of the present fiscal year, which is here compared with a similar return for the quarter ending December 31, 1845, a period long preceding the slightest apprehension of any deficiency in the potato crop of Ireland :—

1845,..	Quintals exported,..	15,779	Value,..	$42,417	Per Quintal,..	$2.70
1851,..	" ..	8,127	" ..	22,530	" .	2.78

Instead of a vast increase of quantity and increase of price, we see here that it is only at the cost of nearly one half of the trade the price is being maintained. It is really to be regretted that gentlemen occupying so responsible a situation as that of a member for the enlightened State of Massachusetts should permit themselves to be deceived into the endorsement of statements so utterly fraudulent, and particularly when the interests of their own immediate constituents are so deeply involved as is the case in the present instance.

It was asserted that the tariff of 1828 tended to diminish our commerce with the world, and it was abolished to make place first for the compromise and then for the strictly revenue tariff, under which the nation was involved in bankruptcy, that led to the reëstablishment of the system of 1828, under the tariff of 1842. The same assertion was then made in relation to that tariff, which was replaced by the act of 1846, under which we were to extend our commerce with all the nations of the world, and to supply them with food to the extent of hundreds of millions of dollars. How far the results obtained have corresponded with the predictions, may be judged from the following statements of the value of exports of fish, at intervals of five years, under the different systems :*

	1830. Tariff of 1828.	1835. Second Year of Comp. Tariff.	1840. Last Year of Comp. Tariff.	1845. Tariff of '842.	1850. Tariff of 1846.
West Indies,	$857,580	$895,679	$550,325	$810,557	$372,886
Europe,	1,121	4,395	1,300	7,335	3,725
South America,	32,810	47,609	42,176	51 289	52,774
	$891,511	$947,683	$593,801	$869,181	$429,385

The direct trade with the consumers of our products thus declines with the progress of *British* free trade, as it grows with that of *American* free trade.

While the exports of American labor and American grain and pork, in the form of fish, thus decline, the imports of foreign labor and foreign grain and pork, in that form, grow as steadily, with daily increasing tendency to a transfer of the whole fishing trade to foreign shipping ; and this, too, under a system that was to give us a larger control over the navigation of the world, based as it is upon the supply of seamen furnished by the fisheries. The movement, both as regards the quantity imported and the character of the shipping, is shown in the following table :—

	1834-5.	1840-41.	1844-5.	1849-50.
American Vessels,		$141,273	$87,285	$63,927
Foreign Vessels,		80,914	202,880	478,705
Total,	$42,741	$222,187	$290,165	$542,632

Deducting the import from the export, we now obtain as the net export—

1834-5.	1840-41.	1844-5.	1849-50.
$934,942	$371,614	$570,016	*minus* $113 247

It would certainly seem that the Hon. member must have permitted himself

* For the figures which follow in relation to the fisheries, we are indebted to a valuable article in the *Merchants' Magazine* for the present month, March, 1852.

to have been most egregiously deceived by some one when he permitted himself to claim that, under the system known as *British* free trade, we either exported more in quantity or obtained a higher price for that we had to sell; for it is quite clear that we send to the world far less fish, and obtain for it lower prices than we did fourteen years since, and that while we are closing our mills, our furnaces, and our mines, and thus imposing upon ourselves a necessity for buying cloth and iron, we are from day to day more and more losing the power to pay for them in fish, as well as in all other articles of food.

Another important article of export is NAVAL STORES, which we propose to examine, with a view to show that the result is every where the same, and that, whether we exvmine the movement of the products of the North or the South, the East or the West, the price diminishes as quantity increases, and that the result of increased dependence on foreign markets is diminished return to the labor of our own people, followed by increased necessity for soliciting loans at the hands of the bankers of Europe.

In 1838–9—the first year of the period embraced in the Hon. gentleman's calculations—the export of naval stores amounted to

258,851 barrels. Valued at....$688,800. Average Value,...$2.67

In 1841–2—the last year of the revenue tariff—the quantity had increased to 330,000 barrels; but so far was this increase from being attended with corresponding increase of return, that the value was only $743,329, an average of only..... 2.25

In 1845–6, we find that the export had risen to 417,719 barrels, being an increase in the four years of more than *twenty-five* per cent., and an increase in the return of almost *fifty per cent.*, the total value having been $1,085,712, giving an average of..... 2.55

This would scarcely seem to bear out the Hon. gentleman's statements, but still less will it be found to be the case with the years that have followed the adoption of the policy of 1846 :—

1847–8,	Export,...385,078	Value,... $752,103	Av. Value,..$1.95
1848–9,	" ...404,809	" ... 845,164	" .. 2.08
1849–50,	" ...531,924	" ...1,142,713	" .. 2.15
1850–51,	" ...500,091	" ...1,063,842	" .. 2.12

In 1845–6, we sent abroad four hundred and seventeen thousand barrels, and obtained for them $1,085,000. In 1850–51, we increased the quantity to half a million, and obtained $1,063,000, thus giving away eighty-three thousand barrels, and suffering a loss of $22,000; and this under a system that was to make so great a demand for ships as could not fail to enrich the producers of all those commodities required for their construction or management!

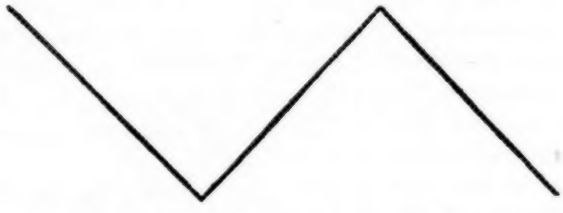
Having given several extracts showing the present condition of things among the producers of food, we now give the following from one of the papers of the day, with a view to show what it is among the producers of naval stores and cotton :—

"Far South, customers have purchased very lightly, and the ***North Carolinians*** who are now buying, make small purchases, and complain of the difficulty of collecting, and dulness of trade generally; therefore we must not expect to close the season's trade as profitably as last year."

The state of things here described is easily accounted for, when we reflect that cotton now sells at little more than thirty dollars a bale, when it would be fifty dollars, had we permitted the domestic consumption to extend itself as it was extending under the tariff of 1842; and when we reflect that the manufacture of food into pork and beef, lead and hemp, coal and iron, is steadily diminishing; and when the only effect of an increase in the manufacture of food into naval stores, is attended with the results exhibited in the following diagram:

1838—Protection.
Export, 258,000 barrels. Price, $2.67.

1845-6—Protection.
Export, 417,000 barrels. Price, $2.55.



1841-2—British Free Trade.
Export, 330,000 barrels. Price, $2.25.

1850-51—British Free Trade.
Export, 500,000 barrels. Price, $2.12.

Having arrived at the close of the statements of the Hon. member for Massachusetts, we may now notice, *en passant*, those just made in the Senate by another of the advocates of that *British* free trade which looks to limiting the planter to a single market in which to sell his cotton, and a single market in which to purchase his cloth and linen. In the course of the debate on Intervention, the Hon. Mr. Soulé states, that—

"In the year 1900, according to the same ratio of increase in exports during the last fifty years, the American exports would be $700,000,000. These exports are the excess of our wealth."

Having read this, we beg our readers to turn back and re-read Mr. Walker's predictions as to our capacity to supply with food the hundreds of millions of the Eastern world, and then to remark the fact, that our exports of food and cotton were, before this time, to have amounted to some three hundred millions of dollars; after which they may advantageously reëxamine the tables by which it is shown that just as we diminish the manufacture of iron, cloth, and lead, we diminish the *manufacture* of pork, beef, lard, butter, cheese, hemp, and wool, and thus diminish our *power* to maintain foreign commerce precisely as we increase our *necessity* for it. The more iron we buy abroad, the less food we have with which to pay for it. The calculation of the Hon. Senator from Louisiana would seem to be on a par, as regards probability, with those of Mr. Secretary Walker, who found the product of the nation so large that he adopted the most certain means for diminishing it; and did this under the idea that he would thereby increase the power to maintain commerce.

With the steady diminution of production throughout the West, there is a corresponding diminution in the value of land. We have now before us a statement, that a single county in Wisconsin has lost by emigration in the last three years, not less than $650,000; and that real estate has fallen in value fifty per cent. The "benign influence" of the tariff of 1846 seems to

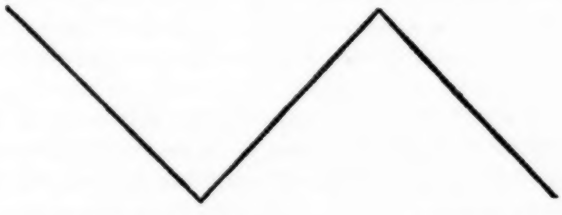
be tolerably equally divided among the smelters of iron, the makers of cloth, the growers of corn and cotton, and the owners of Western lands.

It will not now, we think, be difficult for our readers to understand why it is that there is a daily diminution in the consumption of cloth and of iron. They must see that it results from the fact that there is a daily diminution in the product of commodities to be given in exchange for them. The less pork, beef, lead, or hemp, that is made, the less cloth and iron can be purchased. What have been the changes in this respect, under the different systems, will be seen on an examination of the following diagrams, which represent the total consumption of iron and of cotton cloth, *domestic and foreign*, in the last fourteen years.

IRON.

1838—Protection.
Consumption per head, 46 pounds.

1846—Protection.
Consumption per head, 95 pounds.



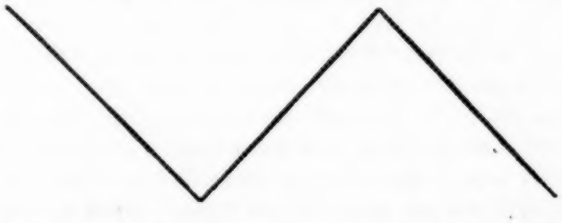
1842—British Free Trade.
Consumption per head, 38 pounds.

1851-2—British Free Trade.
Consumption per head, 69 pounds.

MANUFACTURES OF COTTON.

1838—Protection.
Consumption per head, 8 pounds.

1846-7—Protection.
Consumption per head, 11 pounds.



1841-2—British Free Trade.
Consumption per head, 7 pounds.

1851-2—British Free Trade.
Consumption per head, 9 pounds.

In 1842, the people and the banks, the States and the nation, were either bankrupt, or on the verge of bankruptcy. With the passage of the act of 1842, confidence in the future began to make its appearance, and in the brief period of four years the people were restored to prosperity, commerce grew, banks resumed payments, and States were restored to credit, while the public revenue so far increased as greatly to exceed the expenditure. So magical a resuscitation the world had never before seen; and the very idea of interfering with a system under which such results had been obtained, was calculated to strike with awe even the fiercest advocate of the system which looks to limiting the planter to one market for the sale of all his cotton, and one market for the purchase of all his cloth and iron. The poet tells us, however, that

"Fools rush in where angels feared to tread;"

and so was it here.

In saying this, we beg to disclaim the slightest intention of any disrespect

to the author of the tariff of 1846. Undoubtedly a man of ability, he had unhappily none of the knowledge required to fit him for a reformer of the commercial system of the country. His knowledge of trade and of political economy was derived exclusively from books, and our readers do not need to be told that a farmer who has no practical knowledge, and who depends entirely on books, will ruin himself, even on the best farm. To this absence of knowledge on the part of Mr. Walker are we indebted for the tariff of 1846, under which our consumption of cotton has fallen so low as to force on the European market so large a quantity as to have brought the price down to a point almost as low as has ever been known—under which the consumption of cotton and woolen cloth is daily diminishing in actual quantity, notwithstanding the rapid growth of population—under which we consume far less iron than we did four years since, notwithstanding an addition of more than three millions to our population—under which we have every year less pork and beef, butter and cheese, ashes and fish to sell, and more hemp, lead, cloth and iron to buy—under which we have issued bonds for a hundred millions, to make amends for a diminution in the productive power that now amounts to hundreds of millions annually, and by aid of which the country is now brought to the condition in which it stood in 1836, and that in which Great Britain stood in 1846, on the verge of an explosion—and yet honorable gentlemen can be found who suffer themselves to be misled into assuring the people that we not only obtain better prices for all we have to sell, but that the quantities for sale have vastly increased. The day is at hand when the destructive effects of the tariff of 1846 are to be fully experienced: and for the sake of the Honorable member's future peace of mind, we cannot but hope that he will examine carefully the statements we now place before him, and that he will then relieve himself from all responsibility by publicly acknowledging that he had been mistaken—that the tariff of 1846 was producing the worst effects that had been anticipated from it—and that he had at length become convinced that the road to perfect freedom of trade could be found only in the adoption of protection to the farmer and the planter, in their efforts to bring the loom and the anvil to take their natural places by the side of the plough and the harrow.

In our next we shall continue our examination of this remarkable speech, and trust to satisfy our readers that its author's knowledge of political economy is on a par with the accuracy of his facts. Need we say more to commend it to their careful perusal?

In the meantime, we invite their careful attention to the following brief summary of the *real facts* of the case:—

UNDER THE TARIFF OF EIGHTEEN HUNDRED AND FORTY-TWO,

we built mills and created machinery that enabled us, in less than six years from the date of its enactment, to increase the consumption of cotton from 267,000 to more than 600,000 bales; and to increase the consumption per head from seven to thirteen pounds, with every reason to expect that it would soon reach twenty pounds, to the great advantage of the producer of cotton and the consumer of cloth.

We built mills and created machinery that enabled us, in six years, to increase the domestic manufacture of woolen cloth from fifty-five to eighty-five millions of pounds.

We opened mines and built furnaces that enabled us to increase the domestic production of iron from 200,000 to more than 800,000 tons, and to increase the consumption per head from thirty-eight to ninety-eight pounds per head.

We built rolling-mills that enabled us to commence the manufacture of railroad iron, and to extend it in that brief period to almost 100,000 tons.

We increased the production of lead from 580 to 800,000 pigs; that of hemp from 14,000 to 60,000 bales; and that of wool from forty-eight to seventy millions of pounds.

The *manufacture* of corn and hay into pork and beef, butter, cheese, and lard, was extending itself at a rate unexampled in the world; and the value per ton of the exports from the West to the East was steadily advancing.

We thus made a market for more cotton, and yet had more to export; and the tariff of 1842, that found prices lower than they had ever been before, left them already advanced one fourth, with every reason to expect that they would soon be permanently fixed at a higher standard than had been known for twenty years.

We thus made a domestic market for food, to be consumed by the growers of wool and of hemp, and the producers of cloth and iron, coal and lead, to the annual extent of more than one hundred millions of dollars, and yet our exports rose from fourteen millions in 1841–2 to twenty-four millions in 1845–6.

We consumed more fish and exported more, more rice and exported more, more naval stores and exported more, and the prices of all these things rose, the tariff of 1842 leaving them all much higher than it had found them.

We produced more and consumed more of every thing; the condition of the people steadily improved; the credit of our banks and that of the State and of the general government were restored; and there was a degree of quiet prosperity such as never had before been seen in any portion of the world. *Confidence in the future prevailed throughout the whole range of society.*

UNDER THE TARIFF OF EIGHTEEN HUNDRED AND FORTY-SIX,

we have closed cotton-mills, and driven down the manufacture of cotton from 600,000 to 467,000 bales, and have, in the last three years, decreased the consumption of cloth, foreign and domestic, per head, *twenty-five* per cent.

We have closed woolen-mills, and have, in the last three years, diminished the consumption of cloth, foreign and domestic, twenty per cent.

We have closed mines and furnaces, and have diminished by fifty per cent. the production of iron; and the consumption of iron, foreign and domestic, has fallen from ninety-eight to seventy pounds per head.

We have closed rolling-mills until we have almost annihilated the manufacture of railroad iron, and destroyed the *competition for the sale* of an article so necessary for the cheap transportation to market of our products.

We have diminished the export of lead from 800,000 to 300,000 pigs; that of hemp from 60,000 to 19,000 bales; and the product of wool at least ten millions of pounds.

The manufacture of corn and hay into pork and beef, butter, cheese, and lard, declines daily, and the value of exports from the West to the East has fallen from *sixty-two dollars* per ton in 1845 to *forty dollars* per ton in 1851.

We have thus diminished the market for cotton, and have placed ourselves under the necessity for exporting more, the consequence of which is seen in the fact that it has fallen even below the price of the revenue tariff of 1840–2—then the lowest that had ever been known—with a certainty of great further decline, should the crops prove large.

We have diminished the domestic market for food to be consumed by the growers of wool and of hemp, and the producers of cloth and of iron, coal and

lead, and that diminution cannot be estimated at less than fifty millions of dollars per annum; and yet our ability to supply food to the world declines from year to year, as the *manufacture* of corn and hay into pork, beef, butter, cheese, and lard, declines, and as we become more dependent upon foreign nations for wool and hemp, lead, cloth, and iron.

The import of fish now exceeds the export, that of rice has fallen in both quantity and price, and that of naval stores has increased in quantity while it has declined in amount.

We produce less of every thing, and the consumption of all articles of necessity is gradually declining, proving a steady deterioration in the condition of our people. We are running in debt to foreign nations for articles of luxury. Speculation is every where, *and confidence is no where;* for every man feels that the events of each successive year are bringing us nearer and nearer to a convulsion similar to that which has rendered memorable the period of the revenue tariff of 1840–2.

CHEMISTRY APPLIED TO AGRICULTURE.

Messrs. Editors:—In your February number, I notice the publication of an article entitled, "Chemistry applied to Agriculture." I hope you will give your readers the following comments on the doctrines there advanced, as those views, emanating from and sustained by such respectable authority, may strengthen the cause of empirical agriculture. The author asserts, that "no chemist has ever been able to ascertain what constitutes manure a fertilizing substance."

The most laborious experiments upon this subject that have ever been made, were recently published in the Journal of the Royal Agricultural Society of England. The following is the conclusion of the whole matter, *in the words* of Messrs. Laws & Gilbert: "In conclusion, then, if the mineral theory of Professor Liebig simply implied that the growing plant must have within its reach a sufficiency of the constituents of which it is to be built up, the authors fully and entirely assented to *so evident a truism*, that of the minerals, phosphoric acid is exhausted more than the alkalies."

But your author asserts, that "the sulphates, phosphates, &c., cannot be demonstrated to be fertilizing principles: not one of them will feed plants in an exhausted soil."

Baron Liebig says, (in his recent publication of May 14th, 1851, *Letters on Chemistry*, p. 481,) "Every thing, in the action of any manure, depends *upon the composition of the soil* to which it is added. To fertilize a soil for grain by means of ammonia *alone*, is like trying to rear an ox with food from which the elements of his bones and his blood are excluded. The opinion that potash, phosphoric acid, sulphuric acid, &c., constitute the food of plants, and are as essential to them as bread and meat to men, or hay and oats to horses—this opinion is not the expression of a theory, but of a natural law or universal fact." It is proven by the experiments referred to, that if a soil is exhausted of its organic matter, these *in*organic, or earthy materials, will not supply its place, any more than bread will quench thirst, or water satisfy hunger; but no one will argue from this that bread will not feed man, as our author argues that "the above [elements of all plants] *will* not feed plants!" Your correspondent goes on to say that if it could be proven a field containing *all other* elements of a good soil did not contain one atom of phosphoric acid; and if under these circumstances it was perfectly sterile, yet the *successful* application of phosphoric acid to that field would not afford any evidence of the fertilizing power of phosphoric acid; *and that the fertility of*

any soil can be restored without the addition of any substance whatever!" Baron Liebig says, (Op. cit. 482,) "I have, for three years past, on about twelve English acres of the most barren soil, near Giessen, by the use of a mineral manure, composed on the same principles, obtained for all the crops which are cultivated in the district, results which were declared, previous to my experiments, to be impossible by all the agriculturists who knew the land."

If one single grain of wheat can be raised in pure sand, or in any soil that is *absolutely free* from phosphoric acid, "by the application of a board, or any fermenting substance," then the application of chemistry to agriculture is defeated. Again, if *any one* specimen of soil, *remarkable for its fertility*, can be obtained from any part of the world, that is entirely destitute of phosphoric acid, potash, sulphuric acid, &c., or *any one* of these; then the analysis of soils is a farce, and empiricism has triumphed. I fear that some will think that undue importance has been attached to the diagnosis and successful treatment of the soil referred to by your correspondent. Baron Liebig says, (Op. cit., p. 481,) "The negative results of experiments, made without the guidance of just principles, do not gain in value by their multiplication, and millions of them do not outweigh *one* successful experiment, if the cause of its success be recognized and ascertained." "To the united efforts of the chemists of all countries, we may confidently look for a solution for these great questions; and by the aid of enlightened agriculturists, we shall arrive at a rational system of horticulture and agriculture, applicable to every country and all kinds of soil, and which will be based upon the immutable foundation of observed facts and philosophical inductions."

With regard to the shade theory, I will venture to make a few suggestions. Every one has noticed the luxuriant growth of grass around a board or large stone. This is generally attributed to the influence of shade. I will suggest seven other modes of accounting for it.

1st. The plants growing around the board have double the supply of surface soil for their roots, as all other vegetation is excluded from the surface covered by the board.

2d. It will be noticed that the ground is always more moist under a large stone, or when covered by a board; and the grass around it is consequently supplied with moisture, when that in other situations is dried up.

3d. The temperature of the soil is preserved, as there is no loss of heat from evaporation, so that the growth of the plant is never checked.

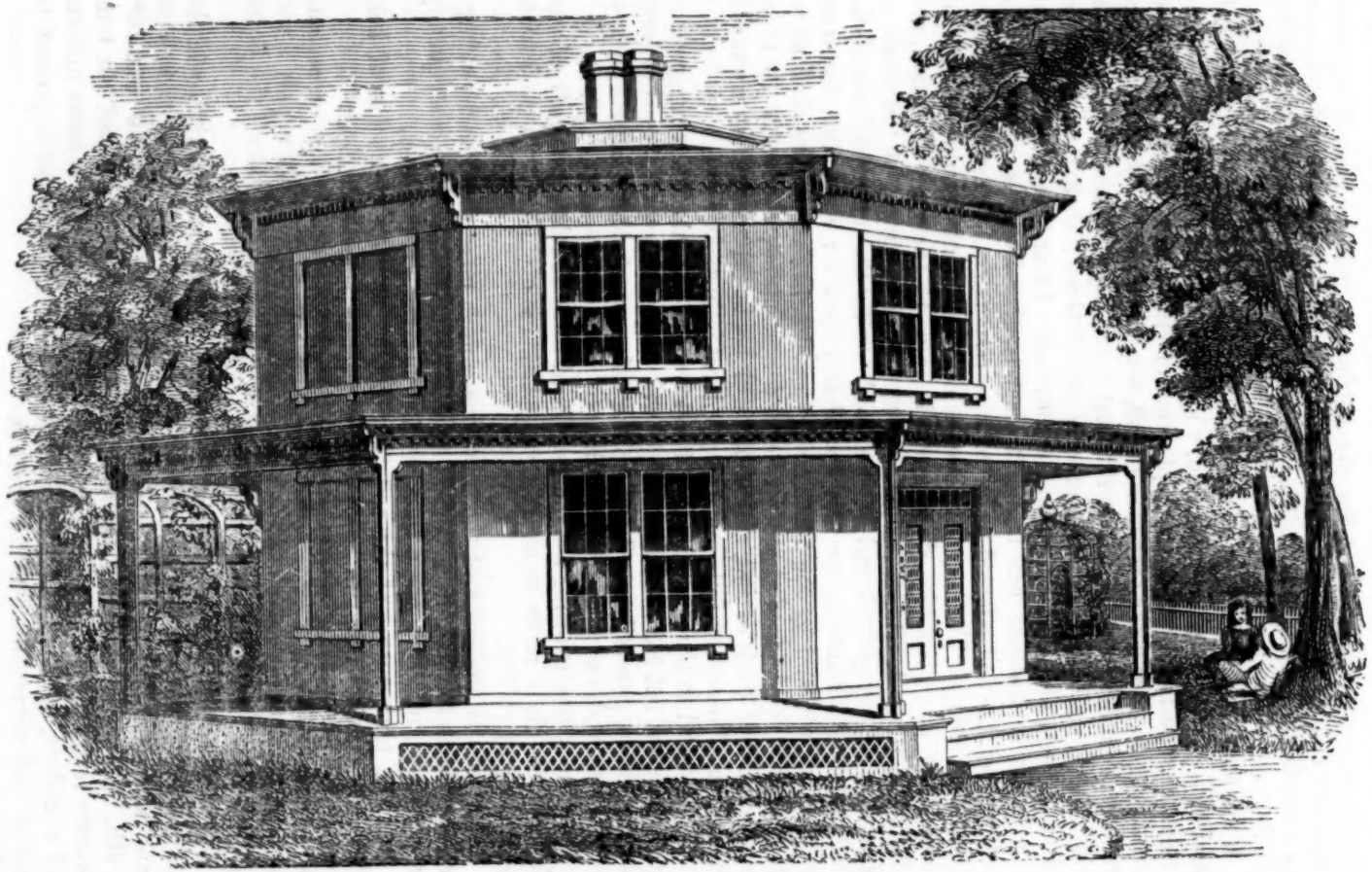
4th. A multitude of animalculæ and insects congregate there on account of the uniform temperature, and their exhalations and exuviæ supply a sort of guano, which would be distributed over a much greater surface if the board were not there.

5th. The supply of carbonic acid from any organic matter (existing in the soil previous to the application of the board) is much greater and more constant, as the temperature above referred to is generally between 40° and 80°.

6th. The disintegration of the soil is promoted by moisture and the temperature referred to, and the supply of the inorganic elements is more uniform and abundant, as they are not only rendered soluble, but water is present to dissolve and convey them to the rootlets.

7th. An ingenious medical friend has suggested to me that "the electrical condition may be as much in contrast with the surrounding parts as the temperature and moisture." Moreover, every one will observe that shade, *per se*, is injurious to vegetation, and the morbid products of its influence will be avoided by all herbivorous animals. DAVID STEWART, M. D.

Baltimore, March 11th, 1852.

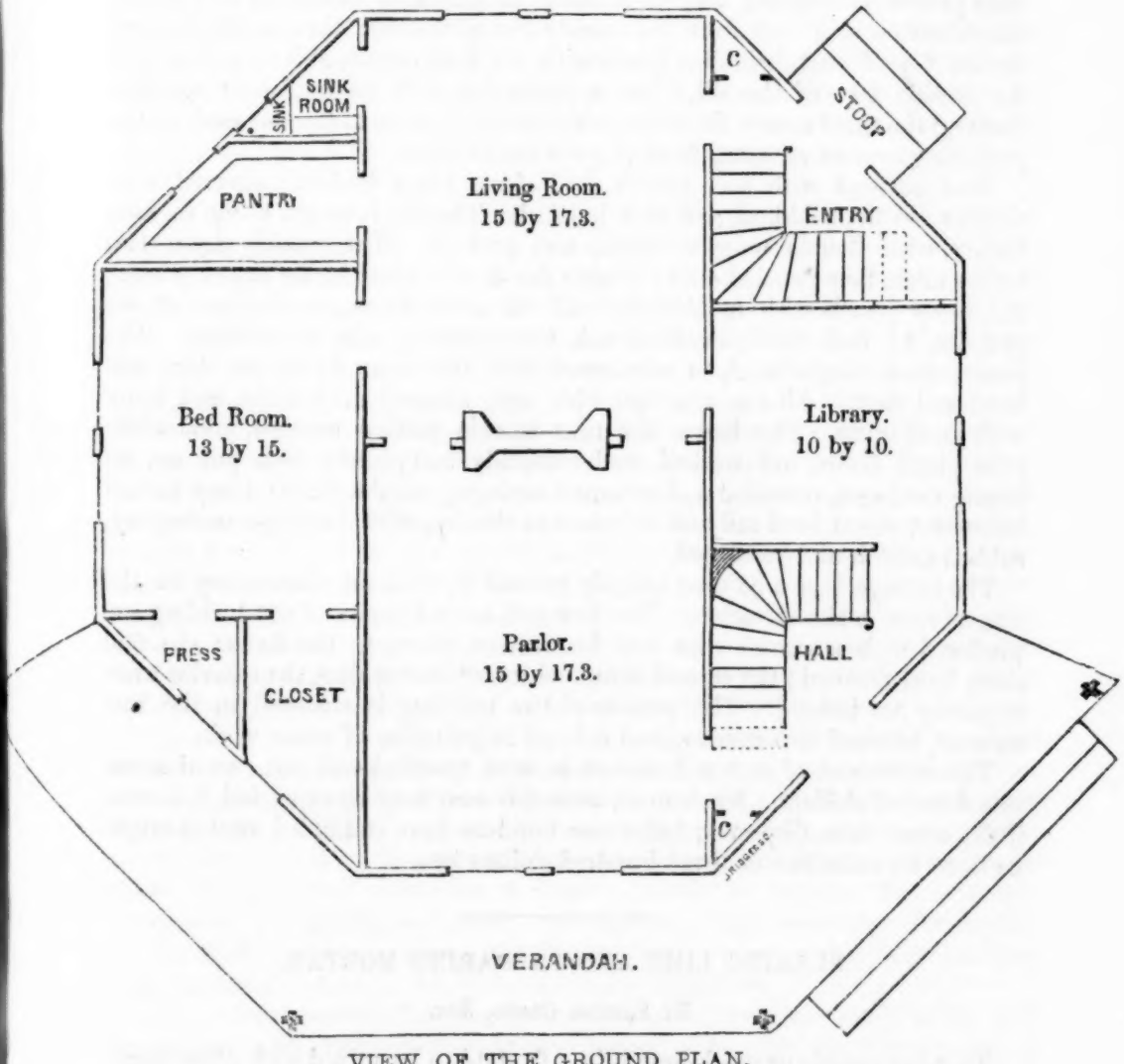


COTTAGE DESIGNS.—No. IV.

COTTAGE DESIGNS.—No. IV.

OCTAGON COTTAGE.

The accompanying engravings represent the elevation and ground plan of an octagon cottage, which has been much admired by builders for its neatness, simplicity, convenient arrangement, and cheapness. Several gentlemen of this city and vicinity are about building after the design here specified, and, for the information of such others as may wish it, we give a brief description of the plan, together with the estimated cost of completing the same. The thing



VIEW OF THE GROUND PLAN.

most likely to stumble the reader, in inspecting this beautiful design, is, that so neat and well-finished a cottage can, from so good material, be constructed so cheaply. This can be explained, however, in the form of the building and the economical method of enclosing it.

The size of the cottage is 36 feet from the outside line of the building to the opposite outside line of each side. The height of the cellar is 7 feet in

clear, the first story 9 feet 6 inches, the second story 8 feet, with 2 feet breast.

The building is well framed, having sills 4×6 inches; first tier of beams, 3×9 inches; second tier, 3×8 inches; all placed 2 feet from centres, with one row of herring-bone bridging to each tier. Hip rafters, 4×7 inches; jack rafters, 3×7 inches, 2 feet from centres; perline plater, 4×10 inches; studs for the two partition walls running through the building, 3×4 inches, joist 16 inches from centres; the other studding of wall strips, 16 inches from centres; the doors being double studded.

The outside wall or enclosing is of pickets or stripes, common or refuse stuff, about 4 inches wide, constructed as follows: After the sills are placed in their proper places, and leveled, a course of pickets is nailed on to the sills, about half an inch back from the outside line of the sill; then another course on the top of that, breaking joints with the first course, and on a line with the outside face of the sill, (that is, projecting half an inch over the first course;) the third course the same as the first, and so on to the top, each course projecting over or receding from the one next below.

Roof covered with box boards laid close, joints broken; covered with single cross tin, soldered, and well painted. The windows are hung in box-frames, with double weights, cords, and pulleys. The outside doors two inches thick, four paneled each; double faced, with glass in the upper panels; the lower panels with mouldings. All the other doors, except those of the pantries, 1½ inch thick, double-faced, four paneled, with mouldings. The pantry doors single-faced, to correspond with the room doors, the other side bead and butt. All are trimmed with neat mineral knob locks, and hung with good butts. The house has neat marble pattern mantels, good white pine plank floors, well-worked, and smoothly laid; stairs well put up, on strong carriages, moulded and returned nosings; moulded rail; fancy turned balusters; newel level rail and balusters at the top, of St. Domingo mahogany, rubbed smooth and varnished.

The cottage has a cornice entirely around it, with an observatory on the top, as seen in the elevation. The first and second stories of the building are plastered with a *scratch* coat and brown coat, down to the floors; the first story hard finished; the second skimmed for white-washing, the exterior walls requiring no lathing. The outside of the building is stuccoed in the best manner, blocked into courses, and colored in imitation of stone work.

The entire cost of such a house as is here specified will not exceed *seventeen hundred dollars.* Much more than this sum *may* be expended, it is true, if the owner is so disposed; but some builders have estimated that it might be done for even two or three hundred dollars less.

SLAKING LIME AND PREPARING MORTAR.

By Samuel Clegg, Jun.

To bring caustic or quick-lime into a fit state to be mixed with other ingredients to form mortar, it must be reduced to a "hydrate," when it is called slaked lime, and the process of reducting is called "slaking." It is pretty generally admitted that the induration of mortars depends upon their absorption of carbonic acid from the atmosphere; and it seems to be essential to this reunion of carbonic acid with the lime, that the latter should have previously combined with its equivalent, or about one third of its weight, of water.

Stuccoes made with hastily prepared lime remain soft and powdery for a long period; but those prepared with well-slaked and tempered lime soon absorb carbonic acid, and become hard often to a considerable depth from the surface. The presence of water being necessary, is further confirmed by the fact, that if dry quick-lime be placed in a jar of carbonic acid, no absorption whatever takes place.

There are three methods of slaking lime, viz.: 1st, by subjecting it to the slow and continued action of the atmosphere; 2dly, by throwing over it a proper quantity of water; and, 3dly, by immersion. The first method is only suited for the fat limes, which should be broken up into pieces not larger than a walnut, or a perfect division will not be effected, and even then the centre of a lump will often remain in a caustic state. This process must not be conducted in too damp an atmosphere, and must be stopped directly the slaking is complete, by putting it into sacks or casks, and placing it in a perfectly dry place, or by covering up the slaked heap with sand, if the lime is to be used in a day or two. For plasterers' work this method is perhaps preferable to any other mode of slaking, as it makes the lime stronger, but it takes a long time in cold weather.

Quick-lime slaked by the addition of water, is the mode usually used in practice, and is at once the most certain and convenient. Rich limes subjected to this process slake with a hissing noise and the disengagement of much heat. The poorer and more valuable limes exhibit these phenomena in a less degree, and about in the proportion of the foreign matter mixed with the lime; and with some of the hydraulic limes no effect will appear to be produced by the water until some hours have elapsed. In this mode of slaking, care must be taken to throw on the necessary quantity of water *at once;* none must be added during the effervescence, or the lime will be numbed, fall to powder imperfectly, and continue gritty. Equal care must be taken not to "drown" the lime with too much water. Thus drowned, it loses the greater part of its binding qualities, and is especially the case with rich limes.

Slaking by *immersion* is accomplished by placing the lime broken into small lumps into a basket, plunging then the basket into water, withdrawing it when the surface begins to boil; the lime is then turned out into casks or heaps, and covered up, that the vapor may complete the slaking. Lime thus slaked may be kept for months, if sheltered from moisture. The rich limes, when slaked and brought to a thick pulp, give from two to three volumes for one; the weather and hydraulic limes do not give, under the same circumstances, more than from one to one and a quarter, or one and a half at most. All limes become *effete*, or difficult to slake, after having been acted on by the air. This fact is more especially remarkable in the hydraulic limes. Spontaneous extinction is suited only to fat limes. The ordinary method of slaking suits all kinds;* and slaking by immersion is suitable only for the hydraulic limes, and is the only method by which they can be kept long or much carried about, without sensible alteration.

The substances mixed with limes to form mortars are sand, ashes, and burnt clay. To enable lime to harden by the absorption of carbonic acid, it is necessary to divide it as minutely as possible, or so as to expose as much surface as possible to the action of the air. The addition of any of the above substances effects their division, and their action is simply mechanical. Sands

* Hydraulic limes are refractory in slaking. It is, therefore, the practice to break up the lumps, and to cover the heaps over with sand after the water is showered over it, by which means the heat is confined, and the process is usually complete in about eighteen hours. These limes may be slaked at once by using boiling water.

are of the greatest value, and are, with very few exceptions, the only substances specified to be mixed with lime to form ordinary mortar; sharp angular grains from quartose, granitic, or schistose* rocks are the best of these. Mortar may be likened to minute rubble masonry, the grains of sand forming the stones, and the lime the cement. The grains must be in close contact, and consequently must present only flat surfaces, and not rounded ones, (for a rubble wall of boulders would have no solidity;) in other words, the sand must be *sharp*. A mixture of coarse and moderately fine sand is advisable, as the finer grains assist in filling up the interstices between the coarser, which otherwise would be filled up with lime. Equally important is it that the sand should be *clean*, that is, unmixed with clay, animal or vegetable matter; and when rubbed between the fingers, it should not soil them, which is a good test. If the sand be otherwise good, this hurtful dirt may be removed by washing; by placing the sand in a shallow tank or tub with a double bottom, the upper end being pierced with holes, and forcing water by means of a pump through the sand, until it runs over the top colorless. Road-drift, in England, or the powdery matter scraped off the surface of roads, is often used by small builders to mix with the lime. When washed and obtained from flint, it is frequently pretty sharp, and may be used for light works; but unwashed, as it is too often employed, it is quite worthless; indeed, mud would be quite as efficacious as many specimens of matter called mortar, used by the class of men alluded to. Sea-sand, before being used in the construction of houses, should be got in large quantities beforehand, and spread out in beds of ten or twelve inches deep, and left to be well washed by the rain, or by fresh water thrown upon them, or by the method described for road-drift. The presence of saline matter causes mortar to absorb moisture at any time from a damp atmosphere, and to throw out a humidity to the surface of the walls. In hydraulic works, sea-sand need not be washed, as the salt does not appear to be injurious to mortar. Pit and other land sands, plentifully spread over the surface, or at a little depth, are generally very excellent; the only care necessary in their selection is, that they must be *sharp* and *clean*.

If cinders, scoriæ, burned clay, or such porous substances, be employed, the lime transfers itself into their pores, and produces a more intimate cohesion. These are, therefore, very useful inert substances to mix with lime. They must, however, be very pure and dry, and rendered pretty fine by grinding. In the case of burnt clay, or brick or tile-dust, they must be thoroughly burnt, and free from vitreous particles; burnt clay and cinders from a smith's forge give to mortar slightly hydraulic properties.

The purest limes require the greatest proportion of sand, and those which contain foreign matter, require less almost in proportion to the extent of impurity. Sir Charles Pasley says, "I have ascertained, by repeated experiments, that one cubic foot of well-burned chalk lime, fresh from the kiln, weighing 35 lbs., when well mixed with $3\frac{1}{2}$ cubic feet of good river-sand, and about $1\frac{1}{5}$ cubic foot of water, produced about $3\frac{1}{4}$ cubic feet of as good mortar as this kind of lime is capable of forming. A smaller proportion of sand, such as two parts to one of lime, is, however, often used, which the workmen generally prefer, (although it does not make, by any means, such good mortar,)

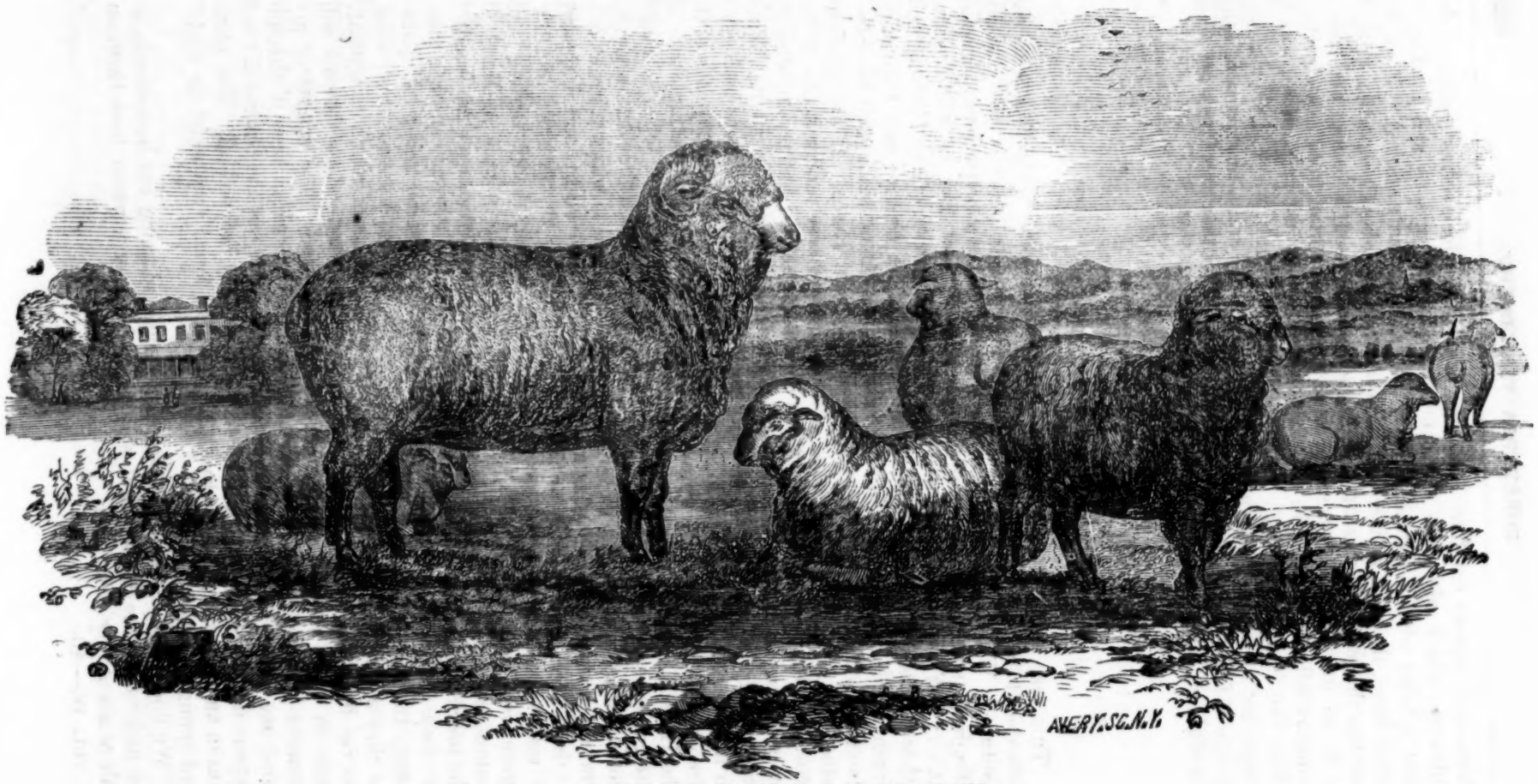
* Schist is often used as synonymous with slate, but it may be very useful to distinguish schistose and a slaty structure. The hypogene or primary *schists*, as they are called, such as gneiss, mica schist, and others, cannot be split into an indefinite number of parallel laminæ, like rocks which have a true slaty cleavage. The uneven schistose layers of mica schist and gneiss are probably layers of deposition, which have assumed a crystaline texture.—*Lyell's "Principles of Geology."*

because it requires less time and labor in mixing, which seems trouble to the laborers; and it also suits the convenience of the masons and bricklayers better, being what is termed *tougher*, that is, more easily worked. If, on the other hand, the sand be increased to more than the above proportion of $3\frac{1}{2}$, it renders the mortar *too short*, that is, not plastic enough for use, and causes it to be too friable, for excess of sand prevents mortar from setting into a compact adhesive mass. In short, there is a certain just proportion between these two ingredients which produces the best mortar, which, I should say, ought not to be less than three or more than three and a half parts of sand to one of lime; that is, when common chalk lime or other pure limes are used, for different limes require different proportions."

FORSYTHIA VIRIDISSIMA.

This very beautiful shrub, which, with the handsome Weigelia Rosea, was introduced by Mr. Fortune from China, proves to be perfectly hardy in this latitude. We condense from a late number of the *Horticultural Journal* (England) some observations on this plant, by J. Saul, Esq., of Washington, D. C.: "When Mr. Fortune introduced it to the garden of the Horticultural Society from China, he spoke in high terms of its beauty; and I question much whether any thing more handsome can be found among all his introductions, not excepting even the lovely Weigelia Rosea. It has qualities which the latter does not possess, and which must ever render it one of the most valuable of hardy plants. From specimens which I had an opportunity of inspecting in England, I entertained a doubtful opinion of its merits. What was my surprise last March, however, when I beheld a magnificent bush of it in the nursery of A. Saul & Co., Newburg, N. Y., covered with myriads of its deep yellow blossoms. The nursery in question is situated in the highlands of the Hudson, with that noble river flowing by their base, and open to a cold breeze from the north, especially in winter, during which time the constitutional hardiness of plants can be well tested. The soil in which it grows is a gravelly loam; the plant is about five feet high, very bushy, and it appears to have been planted two or three years. During the summer of 1850, it made shoots from three to four feet long, which, though strong and green, were well ripened in the autumn. About the middle of March it commences opening its blooms, which had been thickly set over the wood of the previous year, and by the end of the same month it is one complete mass of deep yellow. The *Gardener's Magazine of Botany* says: 'Unfortunately the flowers are too delicate in texture to bear exposure to rough wind, as they are readily bruised, and soon show the effects of rough treatment.' So far from this being correct, I know of no plant whose blooms will bear an equal amount of rough treatment uninjured. The subject of my remarks here was fully six weeks in bloom, during which time it encountered one or two falls of snow and much wet weather, yet the blooms did not appear discolored in the least, up to the time they dropped off. The plant was in an open and exposed situation. It will be found very useful for winter and spring forcing."

We hope soon to see these beautiful shrubs adorning our homesteads, as we understand the Messrs. Saul, and most of our nurserymen, have them on sale at about fifty cents each.



IMPROVED SPANISH MERINO SHEEP.

IMPROVED SPANISH MERINO SHEEP.

We print on the preceding page a spirited engraving representing the Improved Spanish Merino Sheep, recently imported by S. W. Jewett, Esq., of Weymouth, Vt., and now in the possession of Messrs. H. S. Morse and O. F. Holabird, where they justly excite the admiration of all who behold them. Mr. Jewett is well known as one of our largest importers of improved stock, and is now on his way to the Continent for the purpose of attending to the shipment of about $15,000 worth of his last year's purchase, which we trust will prove a profitable investment for him, as we hope it will be a very important one for the friends of improvement in sheep breeding throughout the country.

In regard to the improved sheep of Mr. Jewett's importation, a friend, who has had every opportunity for observing them, remarks:

"We wish those of our readers who have any taste for fine animals could visit the establishments of our friends, H. S. Morse, Esq., and O. F. Holabird, Esq., at Shelburne, and look at the flocks of the new sheep recently imported from France. It is difficult to make those who have not seen them understand the immense disparity between them and the ordinary sheep. We had a chance to compare the two breeds, in a shed where the common sheep and the French ones occupied two divisions in sight of each other. The natives made a sorry show indeed. They looked as if they had pastured on a desert, and eaten thistles in winter, although they had had exactly the same care and feed as the foreigners. The *lambs* of the French breed, three months old, are just about as large and heavy as a full-grown common sheep; and then the wool—it needs to be seen and felt in order to be appreciated. They are mostly covered thick with it, above and below, from the hoofs to the tip of the nose. There is no waste room on them; and as one stands looking at them, it seems by no means extravagant to suppose they can bear the enormous fleeces that are attributed to them. Those we saw at Mr. Morse's have had no feed except grass and hay since their importation in August, and yet they are in better condition than any common sheep we ever saw at this season. They are moreover extremely prolific, and seem to bear this climate as well as the natives.

"We know very well that the truth with regard to these sheep is so astonishing as to raise doubts among those who know nothing of them; but we feel sure that a visit to them will remove all the doubts of the most skeptical. After looking over the flocks, and comparing their stalwart lambs with the full-grown sheep of the common kind, we are convinced that the general introduction of the new breed in this country will work a perfect revolution in the wool-growing business, and improve the quality of the mutton out of all proportion to the increase of trouble and expense. Nor did we wonder that the proprietors had refused what sounds like the extravagant price of $550 for their best stock sheep. The result of the enterprise, whether as respects the value of the importation or the success of the importers, is now no longer problematical. The demand for the sheep is steadily increasing, and already exceeds the supply.

Close of the Hudson.—The Hudson river has been closed the present season 102 days, being twelve days more than the average of the 70 years from 1782 to 1852. The longest time of suspension of navigation on record is 136 days, in 1842–3—the shortest in 1805–6, 42 days.

CULTIVATION OF THE TEA PLANT.

To the Editors of the Plough, the Loom, and the Anvil:

THE introduction and establishment of the tea plant in this country has been attended with far greater difficulties than I had anticipated, although I was quite aware that there was not a single person in China or India of the slightest experience in the business of shipping tea plants and tea nuts from those parts, and cultivating them in this soil and climate. The practice pursued in China and India is all well there, but no sufficient and safe guide here.

We have mountains and valleys, rivers and streams in all their varieties; a soil adapted to the growth of every species of plant; a climate rich in its vegetative power, all our own, and must have a system of cultivation of our own, differing materially from all other nations, and substantially independent. We may draw from others lessons of instruction by careful discrimination, but cannot safely and judiciously follow their example. That, so far as regards the cultivation of tea, would be more likely to lead to error than to improvement. Standing upon our own basis, we shall, I trust, gradually build up a system of cultivation compatible with our great interests and the best good of our country.

We need no catechizing by the conceited wisdom of light-footed masters from abroad, or opinionated craftiness of residents at home. We have a practical lesson to learn, and must be our own teachers. None but an American can understand and appreciate our position in all its gatherings. Others may fancy and tug at the oar, but the beginning and the end will correspond. Our business lies at home, and if we had occasion for the services of the Javanese, or Chinese, or Indians, we can always have as many as we choose to employ. I have had applications for tea employment from all these quarters, but have invariably declined the aid. I do not choose to have my business marred by those that I know must bring their own fixed habits and prejudices with them, and who, at the same time, are entirely unacquainted with the affairs, agricultural pursuits, and modes of cultivation in this country. Nor should I select a person vain enough to think he knows every thing, and can turn his hand to the loom, the plough, the anvil, the tea plant, and every other thing, with equal facility. These are not the characters for patient, persevering labor in any thing. The world is wide enough and protective enough for all its inhabitants, and men of common genius can sustain themselves by their own industry, provided they do not covet and seek to monopolize the whole circle of the arts and sciences. In such case, they generally drop through.

When I commenced the tea cultivation in 1848, I received thirteen cases of tea nuts, and two of tea plants, from China and India, packed in four different ways. By the time they arrived in New-York, I lost every tea plant and every tea nut. Not one remained in a living condition. I do not apprehend that this severe loss arose from any original defect in the plant or nuts, but solely from the want of experience in packing for this distant market. There was not a man to be found in China or India who understood the business. The reason is obvious; no such thing had been done, and the most skilful at home was no better than the most ignorant, when he came to *guess* his method for shipment abroad. This disastrous commencement threw me upon my mettle; and by diligent study into the physiology of the tea plants and nuts, I devised a plan of shipping tea nuts which proved entirely successful the following year, and all arrived in Greenville in the most perfect condition. Never, I believe, were finer tea nuts seen than those received this

season, of last growth and latest importation, a part of which I am now holding for spring planting: the others were planted in October. I hope and believe that I have surmounted the most formidable obstacles with which I had to contend.

The climate and the soil here seem well adapted to the growth of the tea plant, and when once well rooted, it grows with great beauty and luxuriance. The excessive and long-continued drought of the past summer was detrimental and often fatal to the germination of tea nuts. I take blame to myself in not being fully prepared for suitable irrigation, adapted to so peculiar a season. But it is a simple branch of experience and industry, not difficult, but necessary to guard against.

My tea plants, old and young, have sustained the severity of the winter with veteran hardihood. I do not perceive the loss of a single plant. Indeed, the drought and heat of summer are far more likely to injure and even destroy a plant, than any frost we have in this part of the country. A constant watchful care is requisite for all young tea plants. The old ones will stand equally firm against the storms and frosts of winter and the heat of summer. From losses sustained, the general cultivation has been checked in its advance, but perhaps may ultimately be of advantage by more abundantly producing our own seed from a smaller number of well-grown, thrifty plants. With this view, I am husbanding my older plants with all possible attention, and look forward to an early gathering of a few nuts of my own growing. We cannot so well depend upon foreign nuts as upon those of domestic growth. Time is required to mature the plant, before we can expect the seed.

We must patiently wait. It is the duty of man to plant and sow, God's prerogative to give or withhold the increase. All experience teaches that undeviating industry, directed to a single point, seldom fails to reach it, although not in the power of man to say when. JUNIUS SMITH, LL.D.

Greenville, S. C.

THE WHITE NATIVE GRAPE.

To the Editors of the Plough, the Loom, and the Anvil:

You ask for some information relative to a white native grape, cultivated by me. I will give you, as briefly as I can, the history of it.

The banks of the Pawtuckaway (a small branch of the Lamprey river,) abound with the wild grape, so that in the space of two miles you may meet with twenty different kinds, all of which have originated from seeds, and from one of which this vine probably originated. The old vine appears to be sixty or seventy years old; it stands in a cold, rocky, uncultivated spot, and climbs some large maples, flourishing without cultivation. I have known it for eighteen years, and never but what it has borne some every year. The fruit is from one third to double the size of the Isabella with us; it is rather of a drab color, but when very ripe of a reddish cast, quite sweet, and with a very high aroma. I have never known it mildew, which most of the white varieties here are apt to do. The fruit is much larger on the cultivated than on the old stock, but it does not get its full flavor till the vines have borne two or three years, or till the roots get strong. It is perfectly hardy in our climate, and usually stops growing about the first of September. The fruit ripens about the middle of the month in common seasons, and will keep for some time. It is a good bearer: a neighbor has a vine about ten years old, (a layer from the old vine,) which for the last two years has borne more than three bushels each year of very fine fruit. When planted on the south side of a building, it frequently ripens a week earlier. They are now

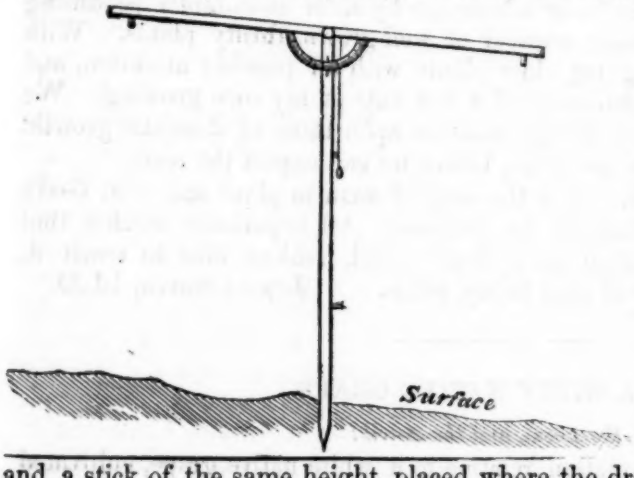
scattered through the whole of New-England, and one lot in New-York. About two years ago, I planted some small vines on a high, dry knoll in the open field, to test their growing on high, dry ground, and I have never seen any grow better. Whenever I have sent the fruit as a specimen, it has invariably given perfect satisfaction; and should it prove adapted to the wants of the people, I shall feel myself richly rewarded for my trouble.

Epping, N. H. D. L. HARVEY.

We have been hoping for some time to find a native white grape that should vie with the Isabella or Catawba, but all that we have as yet met with have been so strongly impregnated with the Fox flavor as to entirely unfit them for table fruit. We hope the above is an exception; and, as we never like to "give up the ship," will endeavor to give it a fair trial.—*Editors.*

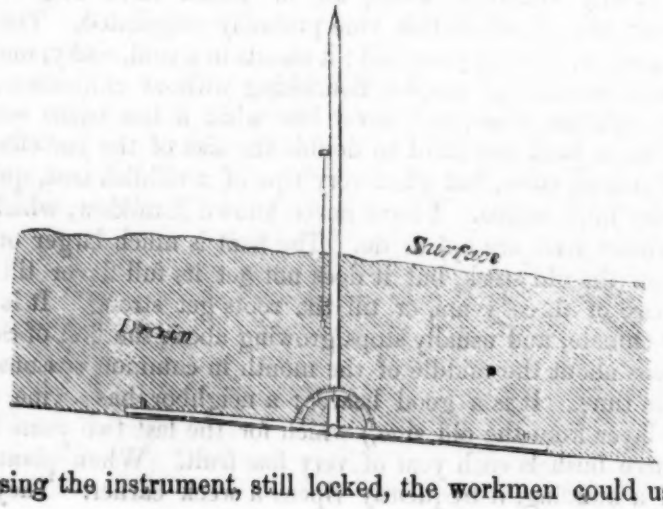
DRAIN LEVEL.

WE present our readers with the following sketch of a "*Drain Level*," which for efficacy and simplicity is worthy the attention of drainers generally.



The implement consists of an upright leg, a cross piece connected to the upright at its centre, a screw-joint, a vernier-scale, fixed to the cross piece and running in a slide on the upright, a sight attached to each extremity of and under the cross piece, and a plumb-line.

The instrument should be stuck in the ground, and a stick of the same height placed where the drain is required; the two sights should be brought to bear on the top of the stick, and the instrument locked in that position by the screw-joint; the scale would mark the inches of fall per yard.



By reversing the instrument, still locked, the workmen could use it in the

bottom of the drain. When not in use, the cross piece could be detached, and the whole carried about as easily as a shovel or other working tool.

TOBACCO CULTURE.—CUTTING AND CURING.

In our February number we gave some statistical facts in regard to the quantity and increase of the tobacco crop in this country; also some brief remarks and directions respecting its culture both at the South and in the New-England States. In the present article we propose to refer briefly to the cutting and curing of the crop.

As soon as the plants come to maturity—which will be generally in about three months after setting out, and which will be indicated by their leaves assuming a spotted and yellowish appearance, and becoming thick in texture, and gummy to the touch—they are ready for cutting and housing. This is considered one of the most critical stages in the whole process of preparing the crop for the market, and the most delicate and difficult part of the business of the planter. In order to be successful, he must now give it his undivided attention, as almost the entire profits of his whole crop for the year depend upon the diligence and skilful management exercised during the few days of cutting. The planter should, previous to commencing this operation, especially if he has an extensive crop, have every thing in preparation, such as barns, wagons, &c., &c., and every arrangement made to dispatch business with all possible diligence. The best method is, to have a number of forked stakes driven into the ground, on which poles may be laid to support the tobacco, and keep it from the ground during the process of *wilting*, or "*falling*," as it is generally termed by the planters. Warm sunny weather should be selected for cutting the plants, which should be done by passing the knife obliquely through the stalk near the surface of the ground. After two or three sharp raps with the back of the knife, to remove the dirt or sand adhering to the leaves, they may be placed, singly or tied together in pairs, gently across the poles or riders prepared for them, until sufficiently wilted. The plants should then be removed to the drying-house or barn, and strung on frames, leaving a small space between each plant, that the air may circulate freely, and promote the drying. This process is performed in some portions of the South by artificial heat, the arrangement of the sticks supporting the plants commencing near the roof at the most elevated tier, and at a distance of about five inches from each other, the distance increasing with each successive downward tier, until the last or lowermost (generally about the seventh) tier of sticks, which are nearest the fire, are about eleven inches distant from each other. "This arrangement of the sticks," says an experienced tobacco curer of Virginia,* "I have ascertained by experiment, is important. The sticks of tobacco being farthest apart next to the fires gives a freer circulation, and consequently a more equal temperature, than the usual way of equal distance from the bottom to the top. The heat having more space to ascend, must be more equal and generally diffused, and will give a more uniform house of tobacco."

Many crops, however, are cured simply by the atmosphere alone. After being carried into the drying-house, and hung upon frames, leaving a small space between each plant, the process of drying commences, and as it gradually progresses, the stalks may be brought closer together, and thus leave

* J. F. Edmunds, Esq.

room for others to take their place. In this process, all damp air and moist winds should be carefully excluded, as far as possible. Also, all drying winds should be excluded, so that the operation may not be too rapid, which causes the evaporation of the aromatic oil, which is so highly conducive to the flavor of the tobacco.

After the plants become sufficiently dried, which may be known by the stems becoming hard and firm, and which will be in about two months after gathering, the leaves should be stripped from the stalks, and put in bulk to sweat. The best time to do this is in moist or cloudy weather, when the leaves are more pliable, easily handled, and less liable to crumble in the operation. Tobacco, at the South, is frequently sorted by experienced hands into three classes; the *first* of which comprises that of the best color and quality; the *second*, that which is somewhat inferior; and the *third*, the ground-leaves. After sorting, the leaves, either single or neatly tied up in bundles, called "*hands*," (consisting of about four leaves of the first class, and six of the second and third classes,) are packed down in bulk to "*condition*," as the process is termed by the planter. In doing this, the stems should be all kept in one direction, and the leaves packed straight. The bulk may be two to three feet high, and of any convenient length and breadth. This may be subjected to pressure from weights, to exclude as much as possible the air from the leaves. It should be watched carefully, and as soon as it is found beginning to heat, the leaves should be "*aired*" or dried, and repacked, placing those leaves which were outside of the heap, *inside*, to equalize the "sweating" process. This operation should be repeated and continued until the tobacco acquires the odor and other qualities desired. It should then be hung up to cure in the air, where it should remain until the stems are perfectly dry; after which it should be taken down, the leaves pressed together; and when a "soft" atmosphere renders the leaves a little moist, so that they will not crumble in the operation, the tobacco is ready for packing in hogsheads, in the usual way, for market. It loses in weight, but very much improves in quality, by keeping, sometimes commanding an advance equal to fifty, and, in some instances, one hundred per cent. per annum, for the first year or two after curing, from the superior flavor thereby acquired.

CHICORY.

While in England, says a correspondent of the *Journal of the New-York State Agricultural Society*, we received information as to the culture of this plant, the roots of which are used as a mixture with coffee. In many of the establishments of the first character in London, where coffee is extensively sold, we found the real coffee, prepared and ground, and by its side, chicory, prepared and ground; and were informed at several of these establishments that it was preferred to mix them, one third of the chicory to two thirds of the coffee. The flavor of the chicory is suited to the tastes of many, and its medicinal qualities give it great favor. Most of that in use in England is imported from Belgium and Germany; but it is being cultivated to a considerable extent in England and Ireland, and the cultivation is increasing.

The seed is drilled in, in April, the same as carrots or beets, on rich light land, and thinned in the rows to about six inches, and kept entirely free from weeds. In September, the roots should be gathered. They are taken up with a potato-fork, and the tops taken off, and the roots are taken to a convenient place and thoroughly washed. The roots are cut in small pieces,

either by hand or a common turnip-cutter, having them as near a uniform size as practicable. The larger are then separated from the smaller, and put into coarse canvas bags and placed on a kiln to dry. They are then disposed of in market to the merchants, who prepare the root in the same manner as coffee, roasting and grinding. As soon as practicable after the roots are cut, they should be dried, to prevent the loss of the milky juice, which contains its most valuable properties. The leaves are fed to cattle and sheep, which are very fond of them; and they are also used as a substitute for woad for coloring, and are esteemed very valuable for that purpose.

FARMING.—No. I.

To the Editors of the Plough, the Loom, and the Anvil:

Of the many subjects which are discussed, and from time to time presented before the public, the subject of farming is deserving much attention. The cultivation of the soil has been the occupation more or less of all ages, and ever must be; and in the same ratio as that occupation has received proper attention or has been neglected, so has wealth and prosperity increased or diminished. The history of the first and middle ages is filled with wars, devastation, and bloodshed. These occupied the time and attention of the inhabitants of the earth during those periods, to the neglect of agriculture; desiring more to destroy the produce of the fields of their enemies, than to cultivate their own. But those ages of darkness have passed away, and mankind now are engaged in agriculture, manufactures, and the cultivation of the arts and sciences. But agriculture at this day even is neglected; requiring as it does more labor, and not of so pleasant a nature as many other occupations, and also the few labor-saving machines which have been introduced into farming, in comparison with other employments, thereby rendering labor pleasanter and of more profit. The time when talent and genius will be devoted to farming and the improvements in farming implements, I hope is not far distant. Attention seems to be turning to that subject at present, and we have begun to have our share of inventions, but farmers seem as yet to be reluctant about using many of them. It is true that the most intelligent part of farmers adopt them, but the majority are as yet unacquainted with the principles of improvement or successful agriculture. The subject of manures, for instance, although it has been thoroughly discussed in agricultural prints, and ideas concerning it flung before the people, yet in regard to that there is room for great improvement. It is the farmer's mine of wealth; and the main object of the successful farmer should be to retain all its value, and apply it to the best advantage in raising the most profitable crops. The process of intermixing peat, mud, or loam with manure, is of recent origin; and there are very few probably at the present day who use sufficient quantities of the former to preserve all their manure, and thereby render it most suitable for the production of any crop. My manner of proceeding, in regard to manure, is this: I usually cart about thirty horse-loads of loam into my yard, to be spread, to save the urine and droppings of my cattle. In the summer and fall, or at all times when not frozen, I proceed to the yard with my shovel every morning, and fling the droppings of the cattle into heaps, which I cover over with fresh mould, brought into the yard once or twice a week; this, frequently flung over, and afterwards mixed with that on the bottom of the yard, which is well saturated with urine, makes a very valuable manure, and also saves all the valuable parts of it. Manure in the winter, in the cellar, should be well mixed with loam, when not frozen too hard

to prevent using to advantage. I usually spread two or three horse-loads of loam per week on my manure in the barn cellar. My stock numbers eight. By adding this quantity, the manure is much improved for any crop. This is, in my opinion, the cheapest and best method of managing my manure. What further remarks I have to make on this, and also in regard to some experience in relation to cultivation of different crops for profit, I find it necessary to reserve for another communication, if it would be desired.

South Walpole, Mass., February 23, 1852. J. N. SMITH.

THE TOPOGRAPHY, GEOLOGY, AND AGRICULTURAL PRODUCTS OF LAMOILLE COUNTY, VERMONT.

To the Editors of the Plough, the Loom, and the Anvil:

LAMOILLE COUNTY lies between 44° 24′ and 44° 46′ north latitude, and 4° 7′ and 4° 34′ east longitude from Washington; and is bounded north by Franklin and Orleans counties; east, by Orleans, Caledonia, and Washington counties; south, by Washington and Chittenden; west, by Chittenden and Franklin counties. The extent north and south is about twenty-seven miles, and nearly the same east and west. Some towns are mountainous and hilly, but much less so than many other portions of the State. It contains four hundred and twenty square miles, mostly within the two ranges of mountains, or, as usually denominated, the "Y." The highest mountains in the State are located in this county. The Chin, or north peak of Mansfield mountain, is four thousand two hundred and seventy-nine feet in height; the altitude of the south peak, or the Nose, is three thousand and eighty-three feet. These peaks derive their names from the striking resemblance to the profile of a man reclining on his back, his forehead, nose, and chin being well defined. The principal river is the Lamoille, which enters the county in Wolcott, and passes out in Cambridge. It receives most of the waters of the county, and courses in a north-west direction, discharging its waters into Lake Champlain, in Milton, south of the sand-bar which is formed by the alluvium constantly floating down this river. Waterbury river receives its forming branches from Stirling, Mansfield, and Stowe, and discharges its waters into the Winooski, in Waterbury. The soil of this county is highly productive; the rich bottoms on the rivers were originally covered with a deciduous growth, consisting of elm, lime, birch, sugar maple, beach, and butternut trees. The leaves of these trees, with the herbage, both being very luxuriant, falling on the surface for many centuries, there forming a rich mould, with occasional inundations, the soil, to a great depth, was as rich as land could be. When first cleared, the crop must be corn or potatoes, to reduce the soil. Wheat would grow so luxuriantly, the heads would not fill, and, from information of the early settlers, it would reach the height of six feet. Latterly, a crop of wheat is uncertain, in consequence of the rust or mildew; but other crops are abundant, by turning up the rich soil. As we leave the intervales, and ascend the higher alluvial arenaceous plains or *deltas*, which are abundant, skirting the river, they are more arid, and not so prolific in grass, but quick, early land, and good for a crop, if well manured: it is well adapted to the growth of oats, rye, and corn. On those plains the farmers use much plaster, lime, and ashes, alone or mixed with other fertilizers. Originally those arenaceous plains were covered with a very heavy growth of timber; hemlocks very tall, and three to four feet in diameter; spruce, and some pine, with hard wood, particularly sugar maple. Some good sugar orchards are now preserved on

those plains. The higher lands are marly, clayey, or loamy. These lands are rich and productive, and abundantly reward the industrious agriculturist. The marly lands produce grass in abundance, and wheat, if it does not rust. Our high loamy lands are very well adapted for grazing, and the only sure place for wheat in hot summers, more particularly hot nights, when the kernel is soft, or in the milk. I have studied this operation sufficiently to satisfy me it is not the hot days that cause mildew or rust, but the hot *nights;* the sap rushes up the culm faster than the grain or head can digest it, and ruptures the stalk, and the grain can receive no further nourishment. If any one doubts my theory, *use* the microscope as soon as the rust is discovered.

ARIEL HUNTON.

CORK.

THE nature of this singular and useful material, and the countries from whence it is obtained, are not, probably, by all our readers generally known. Cork, in the state usually brought to our market, is unwrought bark of a tree, being a species of the oak, which grows wild in the countries of Southern Europe.

The tree is stripped of its bark at about fifteen years old, but before stripping it off, the tree is cut down, as in the case of the oak. It is taken while the tree is growing, and the operation may be repeated every eight or nine years. As the age of the tree increases, the quality of the bark improves. When it is taken off, it is singed in the flames of a strong fire, and after being soaked for a considerable time in water, it is placed under heavy weights, in order to render it straight. Its extreme lightness, the ease with which it may be compressed, and its elasticity, are properties so peculiar to this substance, that no effectual substitute for it has yet been discovered. Its valuable properties were known to the Greeks and Romans, who employed it for all the purposes for which it is used at present, with the exception of stopples, for which the ancients mostly employed cement. The Egyptians are said to have made coffins of cork, which, being spread on the inside with a resinous substance, preserved the dead from decay. Cork was not generally used for stopping bottles and other vessels, till about the close of the seventeenth century, wax being used till then for that purpose. The cork imported into Great Britain is brought principally from Italy, Spain, and Portugal. The quantity annually consumed is upwards of five hundred tons.

TO MAKE EXCELLENT COFFEE.

ALTHOUGH there are but few who are not accustomed to the use of coffee as a beverage, and who acquire by habit a peculiar fondness for it, still but very few, comparatively, partake of the article in its true flavor and richness. In order to do this, procure the best coffee in market, wash it very clean, and roast it, but not to blackness. A rich brown or bright bronze color is all-sufficient for the purpose of giving it the requisite flavor. Then take the whites of three eggs to each pound of coffee, mix very carefully with the coffee while warm, and immediately transfer to earthen vessels, tying them over with bladders or varnished muslin, to render them air-tight. Take from these vessels sufficient coffee for one making only at a time, grind it, place it in a fine muslin bag, suspend it about midway in the pot, turn on the

boiling water, and put on the cover to prevent the escape of steam. The result of this will be a very strong decoction, which should be reduced by the addition of boiling-hot milk, constituting a most delicious beverage, very different, indeed, from that which is produced by boiling the ground coffee in water. The above process may appear, at first, to be somewhat troublesome, but we very much doubt, if our lady readers will once make the experiment for themselves, whether they will ever return to the old method of *boiling* the dregs to produce good coffee.

MANUFACTURES AT THE SOUTH.

At Mobile, of the two large cotton mills but recently erected, one is stated to be already closed, and the other is carried on at a loss, a state of things that cannot long endure, and the result must be that both will soon be closed. If our readers desire to understand why this is so, the reason can readily be given. Just at the time that the cotton manufacture had begun to locate itself in the cotton fields of the South, the tariff of 1842 was repealed, and that of 1846 substituted in its place. Up to that time there was a fair prospect that in a brief period the manufactures of the North and East would be enabled to apply themselves to the work of supplying the rapidly increasing demand for fine cottons, leaving to the South that of supplying the demand for coarse ones, which should now be sufficient to absorb eight hundred thousand bales. With the passage of the act of 1846, this hope ceased to exist, and it became settled that the manufacturers at the North must confine themselves to the production of coarse goods, for which, *during the continuance of the brief period of prosperity that resulted to our farmers from the famine year of England*, the demand continued to increase, until at length it absorbed above six hundred thousand bales. In the last three years, however, things have changed. The domestic consumption of cotton has fallen below half a million of bales; and while we slightly increase our export of fine cottons, that require little cotton for their production, we diminish greatly the consumption of coarse ones, that require much cotton for their production. The manufacturers of the whole country being limited to the production of coarse goods, it follows that both are competing for the possession of a market constantly declining in its extent, although our population rapidly increases; and the effect of this is to force down prices to a point so low that the manufacturers of both South and North are ruined. The effect of this is seen in the fact that the Southern manufacture diminishes far more rapidly than the Northern; and if the existing system be continued, the result must inevitably be that of limiting the production of cotton goods almost entirely to the mills of the North; and thus the measure which was adopted out of jealousy of the North will result in the establishment of their power over the planters of the South. At the moment of writing this article, we meet with an account of the destruction by fire of the *Laurel Factory*, at Columbia, S. C., a loss not likely soon to be repaired, for under existing circumstances no one will build cotton mills. In a few years more, fire and bankruptcy will have closed nearly all the mills south and west of Mason and Dixon's line, and then, too late, the planters will see and understand that the tendency of the tariff of 1846 has been and is that of dealing them the "tender mercies" of the mill owners of Manchester and Lowell, whereas that of the tariff of 1842 was towards their

deliverance from control by enabling them to bring the loom and the anvil to take their places by the side of the plough and the harrow.

The men of Lowell suffer heavily by this state of things, for their interests are precisely those of the South. Had the manufacture of coarse goods continued to extend itself among the cotton plantations, the increased demand for fine goods that would have been the necessary result would long since have enabled them to turn their attention to fine goods, that would be now paying them larger profits, while enabling them to pay larger wages to those in their employ, and the effect of those wages would have been to enable all to consume more largely of the coarse ones. Between the planter and the farmer, the agriculturist and the manufacturer, the manufacturer and the ship-owner, the men of the North and the South, those of the East and the West, there is a perfect harmony of interests, as will be realized whenever the planters shall open their eyes to the great fact that PROTECTION IS THE SHORT, THE EASY, THE PROFITABLE, AND THE ONLY ROAD TO PERFECT FREEDOM OF TRADE.

NEW BOOKS.

Rural Homes; or, Sketches of Houses suited to American Country Life; with Original Plans, Designs, &c. By GERVASE WHEELER. 1 vol. 12mo., pp. 298. New-York: Charles Scribner, 145 Nassau street. 1852.

This is an unpretending, but neat, tasteful, and very useful volume. While the author modestly disclaims any title to originality, his book, in its designs, plans, descriptions, and particularly valuable suggestions, is far better entitled to the credit of originality than most of those of much higher pretensions. The author has certainly given the public a work which will be welcomed by every builder, mechanic, and gentleman of taste throughout the country. Himself a practical architect, Mr. Wheeler has imparted many useful instructions in regard to building in the various styles suited to the means and convenience of all. His work contains simple and comprehensive directions to all desirous of building, embracing every variety of home usually needed. It commences with the first foot-tread upon the spot chosen for the house; details the considerations that should weigh in selecting the site; gives models of buildings, differing in character, extent, and cost, and suited to particular localities, and to circumstances, fully enlarged upon; shows how to harmonize the building with the surrounding scenery, and to reconcile economical expenditure with truest refinement of taste; teaches how healthfully to warm and ventilate; assists in selecting furniture, and the innumerable articles of utility and ornament used in constructing and finishing; with remarks upon the adjuncts to a house, its entrance lodge and its numerous out-buildings. It concludes with final practical directions to building amateurs, giving a few useful hints as to drawing up written descriptions, specifications, and contracts.

We copy the following remarks in regard to the choice of a site for a rural home, as illustrative of the style and character of the work:—

"Think more than once before selecting too large a tract of ground. Space is desirable, undoubtedly; but a ramble in country lanes, and in woods skirting your place, is as pleasant as if in your own grounds, and enjoyed at a far cheaper rate.

"If you really, soberly understand farming, and wish to devote your time and attention to agricultural pursuits, well and good; purchase, then, just so much land as you feel you can control; or, if you have wealth enough to permit you to play at farming, and to raise potatoes at four dollars a barrel, when you can send to the city and buy them at three, and to cultivate other charming crops at a like scale of expense, get as many broad acres as you have a mind to; but for the particular spot where you mean to place your house, choose as follows:—

"Rather prefer a quiet, smiling, little nook, with a rolling surface of natural grassy slopes, tenderly shaded with many trees, than a rocky, bare, quasi-picturesque territory.

"Notice particularly how you are sheltered, by hills around, from the quarter whence cometh the wintry wind, and so prefer rather the gentle slope of a long hill to its summit. Many will tell you, it is true, of the 'fine views' you may enjoy from thence; but distant prospect is monotonous; I repeat, monotonous, though, in so saying, I hazard the inflic-

tion of the title barbarian. Saving some very beautiful effects of aërial *chiaroscuro*, which lighten and quench the gray of the mountain, the view varies but little, however extensive may be the panorama.

"It is the foreground, the familiar objects near the eye, that are varying ever: change of leaf; growth of twig upon twig; budding and fading of flower; constant shifting of the margin of the near winding brook, that make a *coup d'œil* that is never monotonous, for the relation and the aspect of each atom are perpetually varying.

"Apart from these artistic reasons, there are others of very simple and matter-of-fact character that would lead to the preference I advise.

"On the summit of the hill, water is difficult to be obtained without great expense; on the side, it may be found in abundance. On the summit, stone, and sand, and timber have all to be slowly and painfully hauled from below; on the side, perhaps, all of the materials may be almost at hand, and, at any rate, are more easily reached.

"There are some beautiful places (I have one now in my memory) where, with ravine, and waterfall, and forest trees, and evergreen groves, below and on either side, the most eligible spot for the house seems to be on a large extent of level table-land, that, without being on the summit of a hill, is yet elevated above the surrounding surfaces. In such a case, carefully avoid so placing the building as that it appears to stand alone, unsupported by stately trees or rising hills in the midst Nothing can look more bare and un-homelike than an edifice so situated: if there are positively no trees near, and you have, after careful pondering over every foot of ground about your place, been forced to to the determination to build your house on such an open space, all that can be done is, to surround your dwelling as much as may be with architectural shade, and to give it base upon the ground by spreading its verandahs, porch, and ombra, widely on either side, trusting to the growth of the young trees you have liberally scattered around, and to the success of your efforts at removal and transplanting of larger trees from elsewhere, to provide a natural shade that will relieve the bareness of the building and give its outlines connection with the landscape."

Notwithstanding some of our contemporaries have criticized Mr. Wheeler's work rather severely, we cannot see any just cause for it. We believe it will have an extensive circulation, and be received with general favor by all classes, who, we doubt not, will be both interested and *instructed* in Mr. Wheeler's "Rural Homes."

The Folded Lamb; or, Memorials of an Infant Son. By his Mother. With a Preface by his Father, the Rev. George Albert Rogers, M.A., author of "Jacob's Well," etc. 16mo., pp. 206. New-York: Robert Carter & Brothers, 285 Broadway. 1852.

This is another of those beautiful gems of loveliness which emanate so frequently from these excellent publishers. "The Folded Lamb" is the touching and appropriate title of the work, being a well-written, affecting memorial of infant piety and early bereavement, by an affectionate mother, suffering the loss of the loved and lovely object of her affections, and drawing, at the same time, precious consolations from the Word of Life. As an excellent work for mothers, it will be read with deep interest, and every child may peruse it with profit. Every Sabbath-school and family circle should supply themselves with this valuable little volume.

Children, their Hydropathic Management in Health and Disease. A Descriptive and Practical Work, designed as a Guide for Families and Physicians. Illustrated with numerous cases. By Joel Shew, M.D., author of various works on Hydropathy. 12mo., pp. 430. New-York: Fowlers & Wells, Publishers, Clinton Hall, 131 Nassau street. 1852.

When we take into consideration the startling fact that in the whole civilized world about *one third* of the human race die within the first *three* years of their existence, and *one half* during the first *five* years, we shall very readily enter into the philanthropic spirit of the author of a work having for its object the reduction of the mortality and the alleviation of the sufferings attendant on infant life; and for a work like this, we know of no one better qualified than Dr. Shew. Although we have a high regard for the skill and intelligence of the well-educated allopathic physician, we willingly confess our predilections are altogether in favor of the hydropathic treatment; and for children particularly, this system possesses high claims.

Having perused the volume with much interest, we feel very great confidence in recommending it to public favor. Its object is to instruct those who are interested in

regard to the management of children, both in health and in sickness, and we believe it will be found a most useful and safe guide to follow. It is intended generally for family use, and will confer upon the *people* generally a very great amount of obligation for the information it embodies, although it will also be found a useful and convenient work of reference, even for the *physician*. We trust the enterprising publishers will have the pleasure of furnishing it for every family in the land.

The American Rose-Culturist: being a Practical Treatise on the Propagation, Cultivation, and Management of the Rose in all Seasons; with a List of Choice and Approved Varieties, adapted to the Climate of the United States; to which is added Full Directions for the Treatment of the Dahlia. Illustrated by Engravings. 12mo., pp. 96. New-York: C. M. Saxton, Agricultural Book Publisher, 152 Fulton street. 1852.

The above full and comprehensive title will give the reader a concise description of the contents of this valuable little work. While several treatises on the culture of the rose have made their appearance before the public, none have seemed to unite practical and useful information with a price that will place those works within the reach of all. This objection has, however, been entirely obviated by Mr. Saxton, whose abundant facilities and practical experience eminently qualify him to take the lead of the agricultural press in this city, and probably in the whole country. This useful little work forms another volume of "Saxton's Cottage and Farm Library," which is destined, we believe, to occupy a wide and extensive field of usefulness. "The American Rose-Culturist" is published in a neat mail form for twenty-five cents, and well bound in full cloth at fifty cents per copy. Every family who cultivates this beautiful flower should possess it.

The Way to Do Good. By JACOB ABBOTT. Being greatly Improved and Enlarged. With Numerous Engravings. 12mo., pp. 402. New-York: Harper & Brothers, 82 Clift street. 1852.

The popular author of this most excellent work is well known to the public. His "Young Christian" is found in every pious family, and "The Corner-Stone" is equally a favorite with the religious community. "The Way to Do Good" is the third volume of the series, and we are exceedingly gratified to see this valuable work now issued in the elegant style in which the publishers have placed it before the public. With such volumes in the hands of parents who desire to see their children truly benefited, and are willing to be themselves instructed, the whole community would be far happier, wiser, and better than it now is. "The Way to Do Good" should find a place on every parlor table and in every library in the country. We most cordially recommend it to all.

The American Journal of Science and Arts.

This excellent journal continues to increase in interest, and the valuable scientific knowledge and deep research indicated in the several articles of the talented contributors and distinguished editors most fully commend it to every scientific and thinking mind. The number for March contains a great variety of scientific papers by the editors themselves; T. S. Hunt, J. P. Kirtland, W. J. Craw, and W. Hosking, Esqs.; Professors Le Conte, Boyé, Page, Faraday, Root, and Hubland; and Doctors Charles D. Meigs, Henry Goadby, S. P. Hildreth, D. J. Macgowan; and many others from men of distinguished reputation. The subjects embrace a very extensive variety, and are such as cannot be considered properly without a deep and increasing interest. Every person desirous of keeping up with the scientific progress of the age should by all means become a subscriber to the work. Published by Messrs. Silliman and Dana, Hew-Haven, Conn.

Walks and Talks of an American Farmer in England. With illustrations. New-York: G. P. Putnam, 155 Broadway. 1852.

This is the title of the third number of Putnam's admirable semi-monthly series, forming his valuable "Library for Travelers and the Fireside;" and will occupy a very important place in the familiar reading of the family or the traveling public. The author writes in a very pleasing and easy style, and gives a delightful home-picture of English

farming life. His tour was made under favorable circumstances for familiar observation; and being himself an agriculturist, he has succeeded in laying before the public much practical agricultural information and many useful suggestions. Indeed, we do not recollect to have seen a work on the subject which is so well calculated to contribute, both morally and socially, to the enjoyment and useful information of the reader, either in the railroad-car, the stage-coach, or at the family fireside, than this little volume, the price of which is only twenty-five cents.

Rural Architecture. Being a Complete Description of Farm-houses, Cottages, and Out-buildings, comprising Wood-houses, Work-shops, Tool-houses, Carriage and Wagon-houses, Stables, Smoke and Ash-houses, Ice-houses, Apiary or Bee-house, Poultry-houses, Rabbitry, Dovecote, Piggery, Barns and Sheds for Cattle, &c., &c., &c.; together with Lawns, Pleasure-grounds, and Parks; the Flower, Fruit, and Vegetable Garden. Also, Useful and Ornamental Domestic Animals for the Country Resident, &c., &c., &c. Also, the Best Method of Conducting Water into Cattle-yards and Houses. By LEWIS F. ALLEN. Beautifully Illustrated. 12mo., pp. 384. New-York: C. M. Saxton, Agricultural Book Publisher. 1852.

The above is the title of an excellently arranged and beautifully executed work on rural architecture, which, notwithstanding the various works already published on the subject, will be a highly acceptable and almost indispensable work for every farmer and gentleman of rural tastes and habits. It contains a great variety of well-executed and very convenient original designs and plans of country and farm residences, and we believe is one of the most valuable publications of the kind that a farmer can possess. It matters not if a house is already possessed and occupied, as we know there are thousands already thus comfortably located and "settled," perhaps for life, who need just such a book to point out to them a great number of conveniences and improvements about their houses and grounds that never suggested themselves to their own minds, but which they will find it necessary to adopt, and wonder that they had never thought of them before. In short, it is a volume alike adapted to the farmer and every friend of rural improvement in the country; and, in fact, it needs no better recommendation than that of being published by Mr. Saxton, whose valuable publications are so well known and appreciated throughout the country. As a work combining elegance, utility, and cheapness, Allen's "Rural Architecture" stands preëminent.

The Youth's Cabinet: A Book of Gems for the Mind and the Heart. New-York: D. Austin Woodworth, 118 Nassau street. 1852.

The sixth bound volume of this most interesting of our exchanges, devoted to the amusement and instruction of youth, has been some time before the public, and, we are happy to learn, finds unusual favor with our young readers in every part of the country. Indeed, with the high literary attainments of the gifted editor, and the indefatigable energy and judicious efforts of the enterprising publisher of this work, we might reasonably entertain the highest expectations in regard to its general usefulness and popularity. The volume complete is a beautiful specimen of pictorial and typographical excellence, which will cause many a bright eye to sparkle and young heart to glow with deep interest, while conning over the vivid productions of "Theodore Thinker." One dollar per annum, payable in advance. Every youth should possess the work.

EDITORIAL NOTE.—The extreme length of the leading article in our present number has crowded out many favors from correspondents, and prevents us from giving that variety to which we are accustomed to treat our readers. We hope the length of the article alluded to will not prevent it from being read with that attention which its merits and the importance of the topics it discusses demand. We hope in our next to give something like our usual variety.

ERRATA.

Page 583, line 10 from foot.—*For* "increased price has been a consequence of diminished quantity," *read:* "diminished price has been a consequence of increased quantity."

Page 589, second line over the diagram.—*For* "Demand overtakes supply," *read:* "Demand overtaking supply."